

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

FOREWORD

Through the McSweeney-McNary Act of 1928, Congress authorized the Secretary of Agriculture to conduct a comprehensive survey of the forest resources of the United States. The Forest Survey was organized by the Forest Service to carry out the provisions of the Act through the Regional Forest Experiment Stations. In the Southeastern states the Forest Survey is an activity of the Division of Forest Economics of the Southeastern Forest Experiment Station, Asheville, North Carolina.

The five-fold purpose of the Forest Survey is (1) to make a field inventory of the present supply of standing timber, (2) to ascertain the rate at which this supply is being increased through growth, (3) to determine the rate at which it is being reduced through industrial and domestic uses, fire, and other causes, (4) to determine the present consumption and the probable future trend in requirements for forest products, and (5) to interpret and correlate these finds to aid in the formulation of private and public policies regarding forest land management.

The original inventory of forest resources in Florida was made by the Forest Survey during the period 1934-36. Since then, forest growth, use of forest products, changes in land use, more intensive management practices, and other factors have caused changes in the growing stock that can only be measured accurately by on-the-ground surveys. A resurvey of the forest resources in Florida was started in June 1948 and completed in August 1949. Forest area and timber volume statistics for individual Survey Units have already been published. This progress report summarizes the forest area and timber volume statistics of the resurvey, and also presents growth and commodity drain data. When all of the statistical data have been analyzed, a State report will be prepared which will interpret the findings and focus attention upon the principal forest problems.

ACKNOWLEDGMENTS

The author gratefully acknowledges the assistance received from C. H. Coulter, State Forester, and his staff in facilitating the Survey work and in providing additional personnel to augment and intensify the collection of data in the field.

The Division of Forest Economics is under the direction of James W. Cruikshank. The timber inventory field work was under the supervision of Mackay B. Bryan. Photo interpretation work was done by N. F. Force, R. C. Aldrich, and R. W. Cooper. Sample plot work was under the direction of Fritz Lorentzen, E. W. Vetter, M. W. McClure, W. A. McCarty, H. W. Allen, E. A. Schluter, Ben Juskie, and F. S. Hill.

Office compilation of the data was under the direction of Miss Agnes Creasman, assisted by Mrs. Christine Paxton, Miss Priscilla Walker, and Miss Camilla Young.

CONTENTS

| | <u>Page</u> |
|---|-------------|
| 1949 FACTS AND SIGNIFICANT CHANGES | |
| Forest land area decreases slightly - - - - - | 1 |
| Hardwood forest types increase - - - - - | 2 |
| Saw-timber volume decreases 17 percent - - - - - | 3 |
| Hardwood saw timber of poor quality - - - - - | 7 |
| Primary growing stock decreases 9 percent - - - - - | 7 |
| One-fourth of the total volume in cull trees - - - - - | 9 |
| Three-fourths of the forest land understocked - - - - - | 9 |
| Planting required on large areas - - - - - | 10 |
| Turpentining activity declines - - - - - | 10 |
| Saw-timber growth about one billion board feet in 1948 - - - - - | 10 |
| Commodity drain 937 million board feet in 1948 - - - - - | 11 |
| Timber growth exceeds drain in 1948 - - - - - | 12 |
| SUMMARY TABLES | |
| A. Forest area by survey unit, 1949 - - - - - | 2 |
| B. Change in volume of saw timber, 1934-36 to 1949 - - - - - | 4 |
| C. Saw-timber volume by survey unit, 1949 - - - - - | 5 |
| D. Volume of saw timber by stand-size class, 1949 - - - - - | 6 |
| E. Primary growing stock by survey unit, 1949 - - - - - | 7 |
| F. Change in volume of all trees 5.0 inches d.b.h. and larger, 1934-36 to 1949 - - - - - | 8 |
| G. Net annual growth by survey unit, 1948 - - - - - | 10 |
| H. Current annual growth per acre by stand-size class - - - - - | 11 |
| I. Commodity drain by survey unit, 1948 - - - - - | 11 |
| J. Net change in primary growing stock, 1948 - - - - - | 13 |
| DETAILED TABLES FOR THE STATE - - - - - | 14--45 |
| TABLES FOR COUNTIES - - - - - | 46--52 |
| STANDARD FOREST SURVEY TABLES - - - - - | 54--64 |
| DEFINITION OF TERMS - - - - - | 65 |
| RELIABILITY OF FOREST SURVEY DATA - - - - - | 71 |
| HOW THE FOREST INVENTORY IS MADE - - - - - | 72 |

DETAILED TABLES FOR THE STATE

| <u>No.</u> | <u>Page</u> |
|---|-------------|
| <u>AREA</u> | |
| 1. Gross area by broad use class, 1949 - - - - - | 14 |
| 2. Ownership of land, 1949 - - - - - | 15 |
| 3. Commercial forest area by forest type and stand-size class, 1949 - | 16 |
| <u>NET VOLUME OF SAW TIMBER, 1949</u> | |
| 4. By species and stand-size class - - - - - | 17 |
| 5. By species and diameter class - - - - - | 18 |
| 6. By forest type and stand-size class - - - - - | 19 |
| <u>NET VOLUME OF ALL TIMBER (in thousand cords), 1949</u> | |
| 7. By species and stand-size class - - - - - | 20 |
| 8. By species and diameter class - - - - - | 21 |
| 9. By species and class of material - - - - - | 22 |
| 10. By forest type and stand-size class - - - - - | 23 |
| <u>NET VOLUME OF POLE-TIMBER TREES (in thousand cords), 1949</u> | |
| 11. By forest type and stand-size class - - - - - | 24 |
| <u>NET VOLUME OF ALL TIMBER (in thousand cubic feet), 1949</u> | |
| 12. By species and diameter class - - - - - | 25 |
| 13. By species and class of material - - - - - | 26 |
| <u>AVERAGE VOLUME PER ACRE, 1949</u> | |
| 14. Of saw timber by forest type, species group, and stand-size class - | 27 |
| 15. Of all timber by forest type, species group, and stand-size class - | 28 |
| <u>NAVAL STORES, 1949</u> | |
| 16. Number of turpentine pine trees by working status and tree size - - | 29 |
| 17. Area of turpentine timber crops by working status - - - - - | 29 |
| 18. Area of stump land and tonnage of wood naval stores by availability class - - - - - | 30 |
| <u>STOCKING, 1949</u> | |
| 19. Number of trees by species group, quality class, and tree size - - | 31 |
| 20. Area of poorly-stocked stands and unstocked areas by plantability class - - - - - | 32 |
| 21. Commercial forest area by forest type and degree of stocking - - - | 33 |
| <u>GROWTH, 1948</u> | |
| 22. Net annual growth of saw timber by stand-size class, species group, and survey unit - - - - - | 34 |
| 23. Net annual growth of primary growing stock by stand-size class, species group, and survey unit - - - - - | 35 |
| 24. Average growth of saw timber per acre by forest type, stand-size class, and survey unit - - - - - | 36 |
| 25. Average growth of primary growing stock per acre by forest type, stand-size class, and survey unit - - - - - | 37 |
| <u>COMMODITY DRAIN, 1948</u> | |
| 26. From saw timber by species group and survey unit - - - - - | 38 |
| 27. From all timber by species group and survey unit - - - - - | 40 |
| <u>NET CHANGE, 1948</u> | |
| 28. In saw-timber growing stock by species group and survey unit - - - | 42 |
| 29. In primary growing stock by species group and survey unit - - - - - | 44 |

TABLES FOR COUNTIES

| <u>No.</u> | <u>Page</u> |
|---|-------------|
| 30. County area by broad use class, 1949 - - - - - | 46 |
| 31. Ownership of commercial forest land by county, 1949 - - - - - | 47 |
| 32. Net volume of saw timber by county and species group, 1949 - - - - | 48 |
| 33. Net volume of saw timber by county, species group, and diameter- class group, 1949 - - - - - | 49 |
| 34. Net volume of all timber by county, pulping species group, and tree-diameter group, 1949 - - - - - | 50 |
| 35. Commodity drain from primary growing stock by county and species group, 1948 - - - - - | 52 |

STANDARD FOREST SURVEY TABLES

| | |
|---|----|
| 36. Land area by major classes of forest land. Florida, 1949 - - - - | 54 |
| 37. Commercial forest land area by ownership class by stand-size class. Florida, 1949 - - - - - | 55 |
| 38. Volume of live saw timber and primary growing stock on commercial forest land by stand-size class. Florida, 1949 - - - - - | 56 |
| 39. Volume of live saw timber and primary growing stock on commercial forest land by ownership class. Florida, 1949 - - - - - | 57 |
| 40. Volume of live saw timber and primary growing stock on commercial forest land by species. Florida, 1949 - - - - - | 58 |
| 41. All-timber volume on commercial forest land by kind of material. Florida, 1949 - - - - - | 59 |
| 42. Net growth and normal mortality of live saw timber and primary growing stock on commercial forest land by species group. Florida, 1948 - - - - - | 60 |
| 43. Commodity drain of live saw-timber volume and primary growing stock on commercial forest land by species group. Florida, 1948 | 60 |
| 44. Commodity production by timber products in cubic volume and in standard units. Florida, 1948 - - - - - | 61 |
| 45. Area of commercial forest land by generalized forest type. Florida, 1949 - - - - - | 62 |
| 46. Live all-timber volume on commercial forest land by kind of growing stock, species group, tree-size class, and class of material. Florida, 1949 - - - - - | 63 |
| 47. Volume of live saw timber on commercial forest land by diameter- class group by species. Florida, 1949 - - - - - | 64 |
| 48. Net growth, normal mortality, and commodity drain on primary growing stock on commercial forest land by tree-size class. Florida, 1948 - - - - - | 64 |

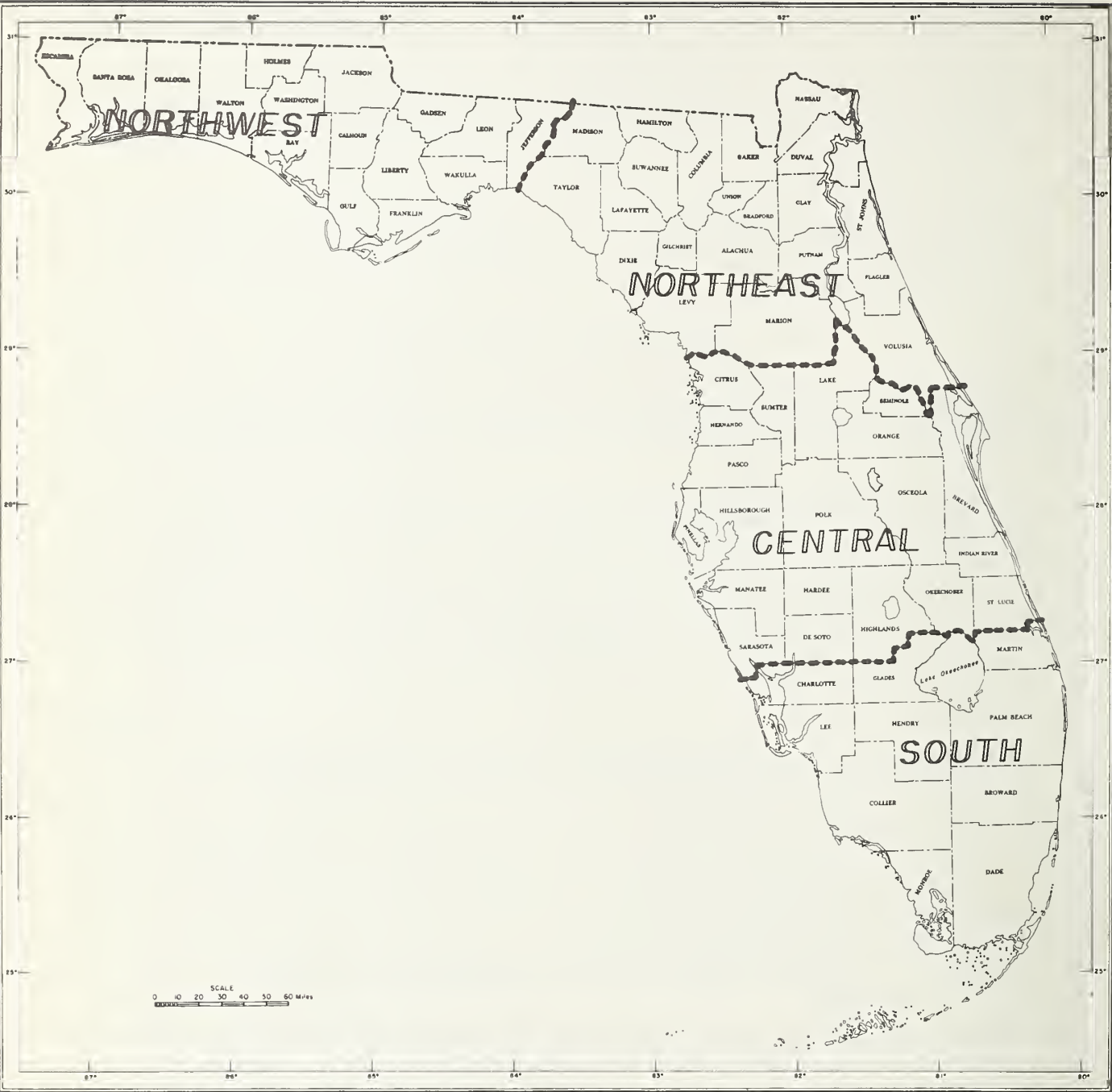


Figure 1.--Forest Survey Units in Florida

FOREST STATISTICS FOR FLORIDA, 1949

This report summarizes the statistical data on forest area and timber volumes for the State of Florida which have been published in individual survey unit releases. It also presents growth and commodity drain data. These statistics were obtained from a resurvey of the forest resources in the State which started in July 1948 and finished in August 1949. The field work was based on the combined use of aerial photographs from which the area of forest land and the areas of timber stands by broad size classes were determined, and on the examination of quarter-acre ground plots from which tree sizes, species, timber volumes, forest type, growth, and other data were obtained.

The original Forest Survey of Florida was made in 1934-36, and by comparing the current statistics with those obtained in the first survey, the trends and changes which have taken place during the interim can be determined.

1949 FACTS AND SIGNIFICANT CHANGES

Forest land area decreases slightly: Forests occupy 23 million acres, or 67 percent, of the 34.5 million acres of land in Florida. The remaining one-third of the total land area is almost equally divided between agricultural and urban uses which make up 16 percent, and marsh, grassland, and sandy coastal strips which occupy 17 percent of the area. The extent of the forest area is illustrated in figure 2.

The acreage of commercial forest land for the State as a whole decreased approximately two percent during the period between surveys. This decrease occurred in Central and South Florida, and is apparently due to land clearing in these areas for pasture and other agricultural uses.

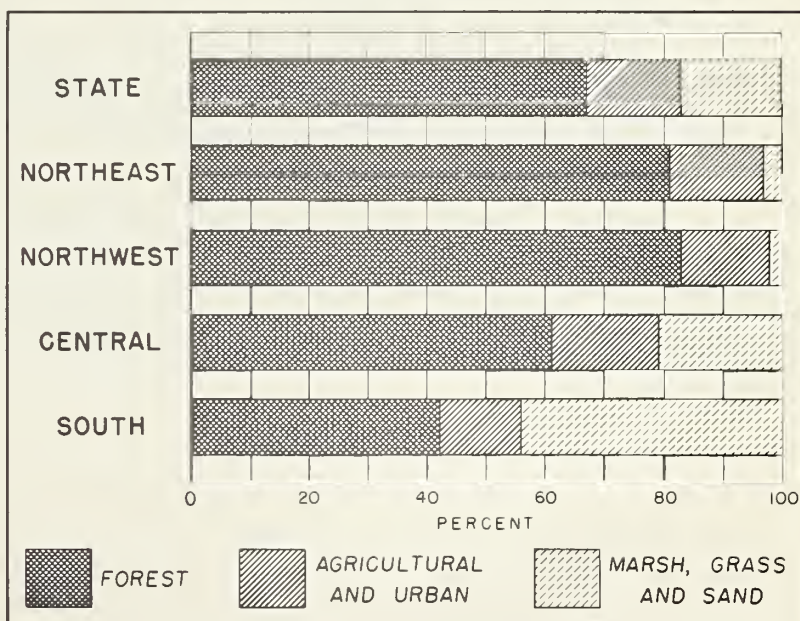


Figure 2.--Land use in Florida, 1949

Northern Florida, including the Northeast and Northwest survey units, is the most important timber-producing section of the State, with more than 80 percent of the land in forest use. Central and South Florida contain very large areas of marsh and grassland, and the current agricultural development activity will probably further reduce the amount of land in forests.

Approximately 1.5 million acres, or seven percent, of the forest land is classified as noncommercial because of its inability to produce timber of commercial size, or because the areas are so inaccessible the timber could not be economically harvested. Nearly three-fourths of this noncommercial forest acreage is located in South Florida, in or adjacent to the Everglades, and the remainder is principally on sandy coastal areas.

Forty-six thousand acres of productive forest land are in State Parks and other public areas where the timber stands are reserved from cutting. Such areas are excluded from the commercial forest land acreage since they are not available for the production of forest products.

Table A.--Forest area by survey unit, 1949

| Survey unit | Total land area | Forest area | | |
|-------------|---------------------------|---------------------------|---------------------------|------------------------------|
| | | Total | Commercial | |
| | <u>Thousand acres</u> | <u>Thousand acres</u> | <u>Thousand acres</u> | <u>Percent</u> ^{1/} |
| Northeast | 9,526 | 7,694 | 7,602 | 80 |
| Northwest | 7,320 | 6,060 | 5,928 | 81 |
| Central | 9,779 | 5,979 | 5,747 | 59 |
| South | 7,854 | 3,314 | 2,174 | 28 |
| State | 34,479 | 23,047 | 21,451 | 62 |

^{1/} Percent of total land area.

Hardwood forest types increase: The most striking change which has occurred in the composition of the forests is the shift in area from softwood to hardwood types. This trend is found throughout the State, and during the period between surveys the acreage of softwood types decreased 14 percent while the acreage of hardwood types increased 64 percent (fig. 3).

These type area changes are primarily due to cutting practices used in harvesting timber. Where stands of pine and cypress are mixed with hardwood species, or where an understory of hardwood trees exists, the preferred softwood species are usually cut leaving the hardwoods to occupy the site. The scrub oak type increased from 1.3 to 1.9 million acres, and the area in other hardwood types increased from 2.0 to 3.5 million acres. During the same period, softwood types decreased from 18.6 to 16.1 million acres.

Pine types predominate throughout the State, occurring on 14.8 million acres, or 69 percent of the commercial forest land. Hardwood types occupy 5.4 million acres, or 25 percent, and cypress types occupy the remaining 1.3 million acres, or six percent (fig. 4).

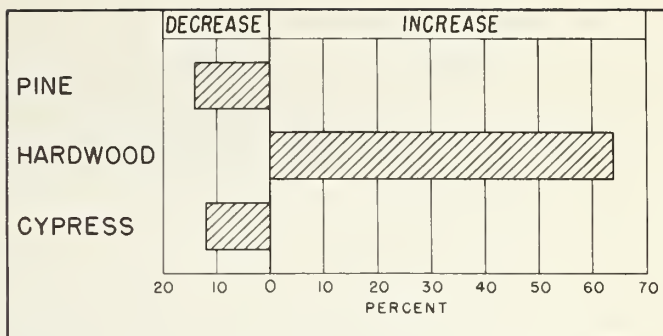


Figure 3.--Change in forest type areas on commercial forest land, 1934-36 to 1949

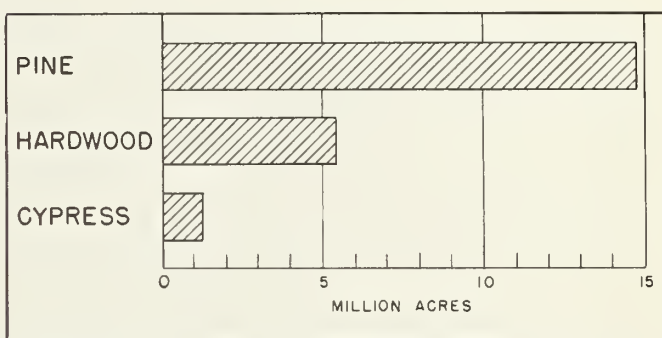


Figure 4.--Commercial forest land by broad types, 1949

Saw-timber volume decreases 17 percent: The total volume of sound saw-timber size trees in 1949 was 20.6 billion board feet. Softwoods made up over three-fourths of this volume with 12.7 billion board feet in pines and 3.2 billion in cypress. The hardwood volume amounted to 4.7 billion feet, or 23 percent of the total.

A comparison of the present saw-timber volume with the volume found in the first survey shows a decline of 17 percent. In making this comparison (table B), the present volume in hardwood trees 12 inches d.b.h. has been omitted since 12-inch hardwood trees were not considered saw timber in the original survey.

Table B.--Change in volume of saw timber, 1934-36 to 1949

| Species group | 1934-36 | 1949 | Change |
|------------------------|----------------------------------|----------------------------------|----------------|
| | <u>Million</u> <u>bd. ft.</u> | <u>Million</u> <u>bd. ft.</u> | <u>Percent</u> |
| Pine | 13,987 | 12,691 | - 9 |
| Hardwood ^{1/} | 5,562 | 3,551 | -36 |
| Cypress ^{2/} | 3,873 | 3,186 | -18 |
| All species | 23,422 | 19,428 | -17 |

^{1/} Excludes volume of hardwoods 12 inches d.b.h.

^{2/} Includes volume of cedar.

The decrease in saw-timber volume was fairly uniform over the northern and central portions of the State, ranging from 14 to 18 percent, but it amounted to 45 percent, or nearly half, of the volume in South Florida. The heavier decrease in board-foot volume in the southern unit can be attributed in part to heavy cutting operations which have removed much of the merchantable timber in the Big Cypress Swamp in Collier County and surrounding areas. The growing livestock industry has also contributed to the decrease of timber volumes in this section through clearing and development of land for pasture and grazing use.

Slash pine is the only major species in which the saw-timber volume increased during the period between surveys. It increased two percent in volume, while longleaf pine decreased 11 percent, and the volume of other pines decreased 32 percent. Hardwood and cypress species also showed a marked decline, being down 36 and 18 percent respectively.

Pine timber makes up 62 percent of the present saw-timber volume with hardwoods accounting for 23 percent and cypress 15 percent. In 1949, the volume of slash pine was 6.3 billion board feet, making it the most abundant individual species (fig. 5). The volume of this species amounted to nearly half the entire volume of pine timber and to 31 percent of the total saw-timber volume in the State. Longleaf pine was the second species in importance with a volume of 4.5 billion board feet, or 22 percent of the State total.

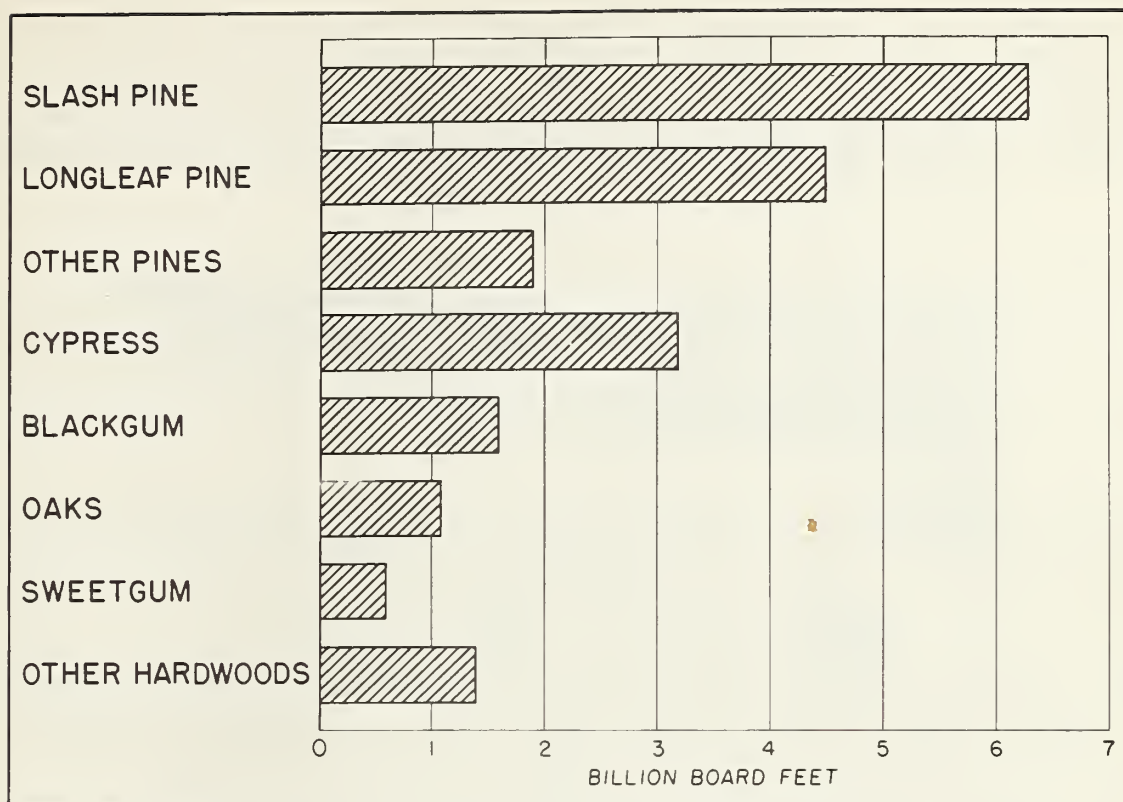


Figure 5.--Board-foot volume by species, 1949

Nearly half, 49 percent, of the total saw-timber volume in the State is located in Northeast Florida, where the average volume per acre is 1,326 board feet. Of the 10.1 billion board feet in this unit, 8.3 billion, or 82 percent, is softwood. Northwest Florida contains 6.3 billion board feet, or 31 percent of the State total, with an average of 1,069 board feet per acre. Central Florida has 3.3 billion board feet, or 16 percent of the total timber, averaging 587 board feet per acre, and South Florida has the remaining four percent (table C).

Table C.--Saw-timber volume by survey unit, 1949

| Survey unit | Pine | Hardwood | Cypress | Total | |
|-------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------|
| | <u>Million</u> <u>bd. ft.</u> | <u>Million</u> <u>bd. ft.</u> | <u>Million</u> <u>bd. ft.</u> | <u>Million</u> <u>bd. ft.</u> | <u>Percent</u> |
| Northeast | 6,640 | 1,769 | 1,655 | 10,064 | 49 |
| Northwest | 3,823 | 2,146 | 369 | 6,338 | 31 |
| Central | 1,794 | 800 | 733 | 3,327 | 16 |
| South | 434 | 2 | 429 | 865 | 4 |
| State | 12,691 | 4,717 | 3,186 | 20,594 | 100 |

The size of the average pine and cypress saw-timber tree is only 11.4 inches in diameter at breast height, as 65 percent of the present saw-timber volume is in the 10- and 12-inch diameter classes. Softwood trees in the 14- to 18-inch diameter class contain 31 percent of the volume, and the remaining four percent is in the larger, more desirable trees (fig. 6). By comparison, only 44 percent of the pine and cypress volume was in the 10- to 12-inch diameter class in 1934-36.

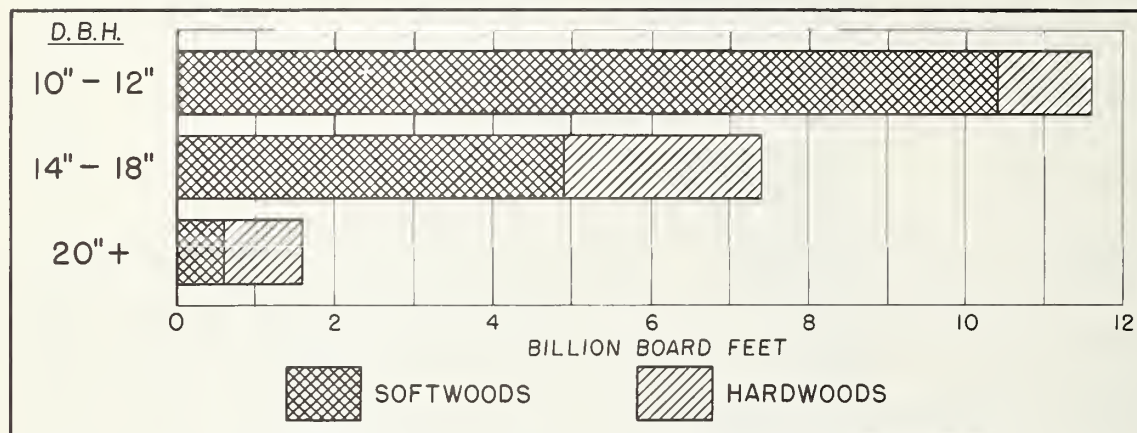


Figure 6.--Distribution of saw-timber volume by tree-diameter class, 1949

In addition to being concentrated in small size trees, much of the saw-timber volume is scattered throughout stands of pole timber, or in trees which have been left as remnants on seedling and sapling or poorly-stocked areas. Thirty-four percent of the saw-timber volume, or 7.0 billion board feet, is contained in stands having less than 1,500 board feet per acre (table D). This volume is scattered and mixed with immature trees in young or poorly-stocked stands over more than 18 million acres. The average volume per acre for timber in these conditions is only 388 board feet, making the economical harvesting of much of this volume either difficult or impossible.

Table D.--Volume of saw timber by stand-size class, 1949

| Species group | Saw-timber stands | Pole-timber stands | Other stands | All stands |
|---------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| | <u>Million</u> <u>bd. ft.</u> | <u>Million</u> <u>bd. ft.</u> | <u>Million</u> <u>bd. ft.</u> | <u>Million</u> <u>bd. ft.</u> |
| Pine | 7,419 | 1,973 | 3,299 | 12,691 |
| Hardwood | 3,561 | 629 | 527 | 4,717 |
| Cypress | 2,537 | 373 | 276 | 3,186 |
| All species | 13,517 | 2,975 | 4,102 | 20,594 |
| Percent | 66 | 14 | 20 | 100 |

Two-thirds of the saw-timber volume is in stands containing 1,500 board feet per acre or more. However, saw-timber size stands occupy only 3.2 million acres, or 15 percent, of the commercial forest area. Stands of large saw timber are very scarce. They contain 2.6 billion board feet of timber and are found on only two percent of the forest land. These larger stands have an average volume of 5,450 board feet per acre. The remaining 53 percent of the board-foot volume is in stands of small saw timber, which occupy 13 percent of the commercial forest land and average 3,960 board feet per acre.

Hardwood saw timber of poor quality: The remaining hardwood saw timber in Florida is composed largely of low-grade material. Only 12 percent of the hardwood volume is of select or number 1 quality, and 20 percent of the volume was grade 2. The remaining 68 percent is almost equally divided between grade 3A logs, which will produce only low-quality lumber, and grade 3B logs, which are primarily suitable for cross ties and timbers.

Primary growing stock decreases 9 percent: Saw-timber volumes in board feet are computed only on trees large enough to produce sawlogs (9 inches d.b.h. for softwoods and 11 inches d.b.h. for hardwoods). The cubic-foot volumes published in this release include the sound wood in pole-size trees (5.0 inches d.b.h. to saw-timber size) as well as the wood in the saw-timber trees. Trees below five inches in diameter are considered saplings or seedlings and are not assigned cubic-foot volumes. The cubic volume in all sound live trees five inches d.b.h. and larger is referred to as the primary growing stock.

In 1949, the cubic-foot volume of primary growing stock was 7.4 billion cubic feet, of which 4.2 billion, or 56 percent, was pine, 2.0 billion, or 27 percent, was hardwood, and the remaining 1.2 billion, or 17 percent, was cypress (table E).

Table E.--Primary growing stock by survey unit, 1949

| Survey unit | Pine | Hardwood | Cypress | Total | |
|-------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------|
| | <u>Million cu. ft.</u> | <u>Million cu. ft.</u> | <u>Million cu. ft.</u> | <u>Million cu. ft.</u> | <u>Percent</u> |
| Northeast | 2,060 | 799 | 579 | 3,438 | 47 |
| Northwest | 1,321 | 854 | 110 | 2,285 | 31 |
| Central | 610 | 327 | 343 | 1,280 | 17 |
| South | 160 | 3 | 191 | 354 | 5 |
| State | 4,151 | 1,983 | 1,223 | 7,357 | 100 |

During the period between surveys, Florida has lost nine percent of its sound-tree or primary growing stock. The cubic volume of sound pine timber decreased four percent; hardwoods and cypress were down 15 and 14 percent respectively. Meanwhile, the cubic volume of sound material in cull trees, or secondary growing stock, increased sharply (table F).

Table F.--Change in volume of all timber, 1934-36 to 1949

| Species group | Primary growing stock | | | Secondary growing stock | | |
|---------------|----------------------------------|----------------------------------|----------------|----------------------------------|----------------------------------|----------------|
| | 1934-36 | 1949 | Change | 1934-36 | 1949 | Change |
| | <u>Million</u> <u>cu. ft.</u> | <u>Million</u> <u>cu. ft.</u> | <u>Percent</u> | <u>Million</u> <u>cu. ft.</u> | <u>Million</u> <u>cu. ft.</u> | <u>Percent</u> |
| Pine | <u>1</u> /4,332 | 4,151 | - 4 | 71 | 100 | +41 |
| Hardwood | 2,329 | 1,983 | -15 | 1,313 | 2,393 | +82 |
| Cypress | 1,420 | 1,223 | -14 | 172 | 249 | +45 |
| All species | 8,081 | 7,357 | - 9 | 1,556 | <u>2</u> /2,742 | +76 |

1/ Excludes 102 million cubic feet in turpentine butts.

2/ Excludes 169 million cubic feet of noncommercial hardwoods and 1,009 million cubic feet of palms, species not tallied on the 1934-36 survey. Also excludes 45 million cubic feet in limbs of 12-inch hardwoods.

Some of the changes which have brought about the over-all decline in sound timber are interesting and significant. In North Florida the sound cubic volume of pine has increased two percent, from 3,306 to 3,381 million cubic feet. In contrast with a slight decline in saw-timber volume for the same area, this change indicates that the number and volume of pole-size trees has increased sufficiently to offset the decrease which has taken place in the number of larger saw-timber trees. In Central and South Florida the volume of pine species decreased 25 percent in terms of cubic feet and 36 percent in board feet, indicating a general decline in the number of sound pine trees in all size classes. The sound cubic volumes of hardwood and cypress show general declines throughout the State except in Central Florida, where the hardwood volumes are about unchanged and the cypress volumes increased 20 percent.

For the State as a whole, the only increase in sound tree volumes was in trees of pole size (fig. 7). The heavy cutting of both softwood and hardwood trees of saw-timber size has overbalanced this increase in pole-timber volume, creating a net decrease in the volume of all sound trees combined. Hardwood trees in the 12-inch diameter group were classified as pole timber during the original survey. For comparison, the 1949 cubic volume of 12-inch hardwood trees has been included with the pole-timber volumes shown in figure 7.

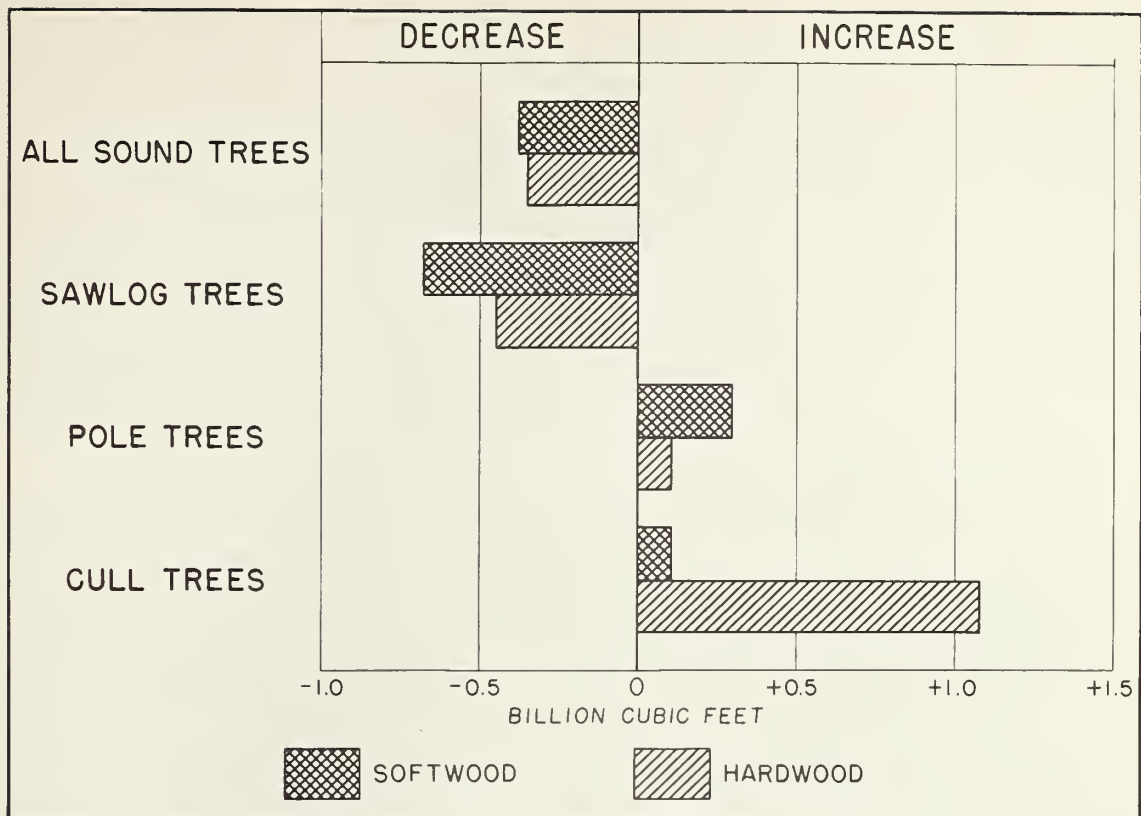


Figure 7.--Change in all-timber volume, 1934-36 to 1949

One-fourth of the total volume in cull trees: In 1949, the net cubic volume in cull trees amounted to 27 percent of the total net cubic volume, compared to 16 percent in the original survey. The change in cull hardwood volume is particularly significant. The volume increase in cull hardwood trees was 1.1 billion cubic feet, making the present volume 82 percent greater than was found in the first survey.

This increase is due, in part, to an increase of nearly 200 million cubic feet in the volume of scrub oak. Another 200 million cubic feet can be attributed to the increase of sound cull trees of other species. Thus, the major change was in the volume of rotten cull trees. Many hardwood trees which contained some degree of rotten material during the first survey have since become too rotten to qualify as sound trees. This condition is aggravated by cutting practices which seldom remove hardwoods with any marked degree of rotten cull from the stand.

Three-fourths of the forest land understocked: One outstanding feature of the commercial forest land in Florida is the degree of understocking in sound trees of desirable species. Stocking classifications are based on trees of all sizes, and they indicate the extent to which the available growing space is effectively utilized.

In 1949, there were 15.6 million acres of commercial forest land which were less than 40 percent stocked with sound trees. This area of poorly-stocked timberland amounts to nearly three-fourths of the commercial forest area and represents a serious deficiency in the timber-producing capacity of the State. Breaking this area down further, it was found that more than 9.7 million acres, or 45 percent, of the commercial forest land is seriously understocked or denuded, having less than 10 percent stocking in sound trees.

Planting required on large areas: Slightly over 60 percent of the poorly-stocked forest area in the pine and upland hardwood types will require planting if the land is to be restocked with trees. Over six million acres are suitable for the use of tractor-drawn planting machines. Approximately one million acres would require hand planting because the planting areas are less than 10 acres in size, or because ground conditions would prohibit the use of planting machinery.

Sites are poor over much of the poorly-stocked land, and commercially profitable plantations may be limited to only a part of the seven million acres.

Turpentine activity declines: The period between surveys has been marked by a considerable decrease in turpentine activity. The number of slash and longleaf pine trees 9 inches or larger being worked for gum decreased from nearly 36 million during the first survey to 13 million in 1949. The area supporting crops of working turpentine trees likewise decreased from nearly 2.5 million acres to 600 thousand acres. Most of the worked-out timber which characterized the turpentine belt in Florida some years ago has been removed from the stands.

Saw-timber growth about one billion board feet in 1948: The net annual growth of saw timber in Florida for 1948 was 1.1 billion board feet (table G). This growth includes the increase in volume of all sound saw-timber trees plus the volume of trees reaching saw-timber size during the year. It excludes the volume of trees dying from natural causes. The calendar year 1948 was chosen as a basis for computing growth so that comparison could be made with 1948 drain data. Growth of pine timber amounted to more than 800 million board feet, or 74 percent of the total. Geographically, the volume of growth is roughly in proportion to the distribution of the growing stock. The forests of Northeast Florida produced 589 million board feet of saw timber, or 52 percent of the total. Northwest Florida produced 358 million board feet and Central and South Florida combined produced 178 million.

Table G.--Net annual growth by survey unit, 1948

| (in million board feet) | | | | |
|-------------------------|------|----------|---------|-------|
| Survey unit | Pine | Hardwood | Cypress | Total |
| Northeast | 471 | 71 | 47 | 589 |
| Northwest | 260 | 86 | 12 | 358 |
| Central & South | 106 | 33 | 39 | 178 |
| State | 837 | 190 | 98 | 1,125 |
| (in million cubic feet) | | | | |
| Northeast | 132 | 33 | 15 | 180 |
| Northwest | 90 | 33 | 2 | 125 |
| Central & South | 36 | 13 | 16 | 65 |
| State | 258 | 79 | 33 | 370 |

The growth of all sound trees 5.0 inches d.b.h. and larger, both pole and saw-timber trees, amounted to 370 million cubic feet in 1948. This volume also includes trees reaching 5.0 inches in size during the year and excludes mortality.

The average current annual growth of saw timber per acre in Florida is only 65 board feet (table H). The average growth per acre of all sound trees 5.0 inches and larger is correspondingly low, being 20 cubic feet or approximately three-tenths of a standard cord. Saw-timber stands are growing at the much faster rate of 265 board feet per acre per year, or eight-tenths of a cord, with the highest rates of increment in the loblolly pine and slash pine types. The low average rate of growth for all stands of timber is primarily due to the large area of forest land which is in a poorly-stocked condition.

Table H.--Current annual growth per acre by stand-size class

| Stand size | Saw-timber trees | All sound trees 5.0" d.b.h. and larger | |
|--------------------|------------------|--|-------|
| | Board feet | Cubic feet | Cords |
| Saw-timber stands | 265 | 57 | 0.8 |
| Pole-timber stands | 68 | 40 | 0.6 |
| Other stands | 19 | 7 | 0.1 |
| All stands | 65 | 20 | 0.3 |

Commodity drain 937 million board feet in 1948: Timber cutting for the production of various forest products created a drain of 937 million board feet on the saw-timber growing stock (table I). The drain on all sound trees 5.0 inches d.b.h. and larger amounted to 232 million cubic feet. These commodity drain estimates have been adjusted for waste and overutilization in cutting operations according to Forest Survey inventory standards. They apply only to the sound-tree growing stock. Approximately 88 percent of the total drain was on softwood timber, and about half of the drain took place in Northeast Florida. Ninety percent of the drain came from saw-timber trees and ten percent from pole-size trees.

Table I.--Commodity drain by survey unit, 1948

(in million board feet)

| Survey unit | Pine | Hardwood | Cypress | Total |
|-----------------|------|----------|---------|-------|
| Northeast | 397 | 40 | 23 | 460 |
| Northwest | 164 | 49 | 12 | 225 |
| Central & South | 169 | 24 | 59 | 252 |
| State | 730 | 113 | 94 | 937 |

(in million cubic feet)

| | | | | |
|-----------------|-----|----|----|-----|
| Northeast | 105 | 9 | 5 | 119 |
| Northwest | 43 | 11 | 3 | 57 |
| Central & South | 38 | 6 | 12 | 56 |
| State | 186 | 26 | 20 | 232 |

The leading forest products are shown in figure 8. Sawlogs used for lumber, sawn ties, and timbers made up 41 percent of the total. In terms of cubic feet, the drain created by pulpwood cutting nearly equaled the sawlog drain, being 38 percent of the total drain. Veneer logs and bolts accounted for 8 percent of the drain; hewn ties, 6 percent; fuel wood, 2 percent; poles, 3 percent; and all other forest products, 2 percent.

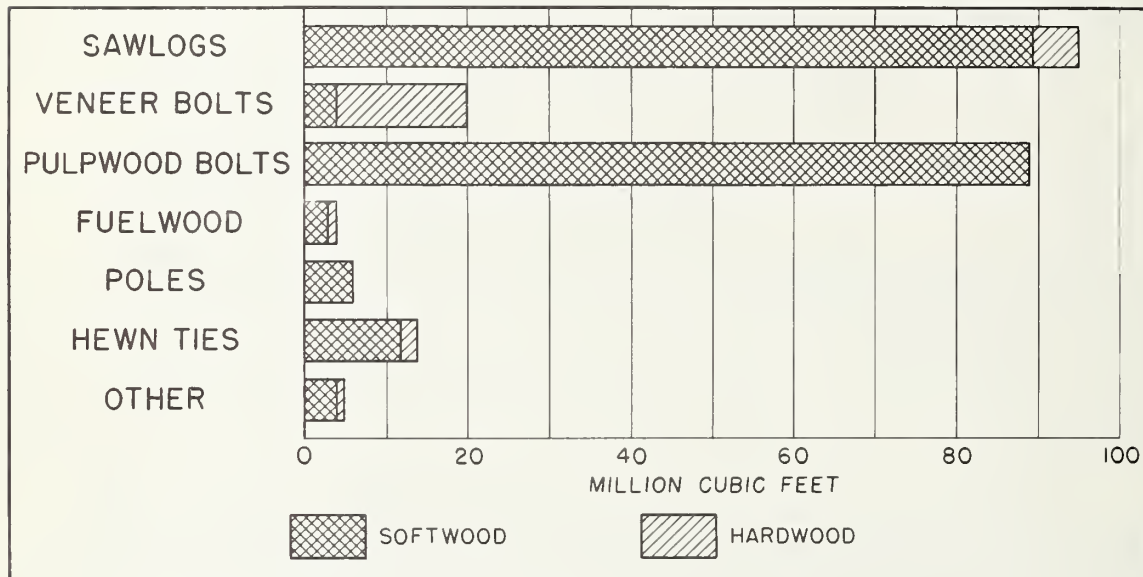


Figure 8.--Commodity drain by forest product, 1948

Timber growth exceeds drain in 1948: The net increase in volume on the sound-tree growing stock during 1948 exceeded drain in terms of both board feet and cubic feet (table J). For the State the net change resulting from board-foot growth of saw-timber trees amounted to an increase of 188 million board feet. However, in Central and South Florida the board-foot volume decreased 74 million board feet mainly because of heavy timber cutting operations and land clearing activity.

The cubic volume increase of all sound trees 5.0 inches and larger amounted to 138 million feet with the heavier increases in northern survey units and a slight increase in Central and South Florida. These changes during 1948 caused increases of about one percent in the State's saw-timber growing stock during the year and two percent in the total sound tree growing stock.

Table J.--Net change in primary growing stock, 1948^{1/}

(in million board feet)

| Item | Pine | Hardwood | Cypress | Total |
|--|------|----------|---------|-------|
| Growth on original stand ^{2/} | 658 | 144 | 58 | 860 |
| Ingrowth | 248 | 73 | 49 | 370 |
| Total growth | 906 | 217 | 107 | 1,230 |
| Mortality | 69 | 27 | 9 | 105 |
| Net growth | 837 | 190 | 98 | 1,125 |
| Commodity drain | 730 | 113 | 94 | 937 |
| Net change | +107 | +77 | +4 | +188 |

(in million cubic feet)

| | | | | |
|--|-----|-----|-----|------|
| Growth on original stand ^{2/} | 245 | 70 | 32 | 347 |
| Ingrowth | 33 | 18 | 8 | 59 |
| Total growth | 278 | 88 | 40 | 406 |
| Mortality | 20 | 9 | 7 | 36 |
| Net growth | 258 | 79 | 33 | 370 |
| Commodity drain | 186 | 26 | 20 | 232 |
| Net change | +72 | +53 | +13 | +138 |

^{1/} See table 28 for change in board-foot volume by survey unit.

^{2/} Growth on trees included in the growing stock at the beginning of the year.

Table 1.--Gross area^{1/} by broad use class, 1949

| Class of use | Area | |
|--------------------------------|--------------|----------------|
| | <u>Acres</u> | <u>Percent</u> |
| Forest land: | | |
| Commercial | 21,451,100 | 57.2 |
| Noncommercial | 1,267,600 | 3.4 |
| Reserved | | |
| Commercial | 46,400 | 0.1 |
| Noncommercial | 281,900 | 0.8 |
| Total forest | 23,047,000 | 61.5 |
| Nonforest land: | | |
| Agriculture - active | 3,346,800 | 8.9 |
| Agriculture - idle | 1,121,900 | 3.0 |
| Marsh | 5,899,700 | 15.7 |
| Dunes and beaches | 71,300 | 0.2 |
| Urban and other ^{2/} | 991,900 | 2.7 |
| Total nonforest | 11,431,600 | 30.5 |
| Total land area | 34,478,600 | 92.0 |
| Total water area ^{3/} | 2,999,800 | 8.0 |
| All classes | 37,478,400 | 100.0 |

^{1/} From U. S. Bureau of the Census, 1940.

^{2/} Includes urban, suburban residential, and rural industrial areas, rights-of-way, cemeteries, schools, etc.

^{3/} Includes 249 thousand acres of water according to Survey standards of area classification, but defined by the Bureau of the Census as land.

Table 2.--Ownership of land, 1949

| Class of ownership | All land | | Commercial forest land | |
|--------------------|--------------|----------------|------------------------|----------------|
| | <u>Acres</u> | <u>Percent</u> | <u>Acres</u> | <u>Percent</u> |
| Public land: | | | | |
| Federal | | | | |
| National forest | 1,063,600 | 3.1 | 1,025,500 | 4.8 |
| Indian | 78,500 | 0.2 | 36,100 | 0.1 |
| Other | 1,896,900 | 5.5 | 919,600 | 4.3 |
| Total Federal | 3,039,000 | 8.8 | 1,981,200 | 9.2 |
| State | 1,145,900 | 3.3 | 223,300 | 1.0 |
| County & municipal | 146,900 | 0.5 | 55,600 | 0.3 |
| Total public | 4,331,800 | 12.6 | 2,260,100 | 10.5 |
| Private land | 30,146,800 | 87.4 | 19,191,000 | 89.5 |
| All classes | 34,478,600 | 100.0 | 21,451,100 | 100.0 |

Table 3.--Commercial forest area by forest type and stand-size class, 1949

| Forest type ^{1/} | Large saw-timber stands | Small: saw-timber stands | Pole- timber stands | Seedling & sapling stands | Poorly stocked stands & unstocked areas | All stands |
|---------------------------|-------------------------------|--------------------------------|---------------------------|---------------------------------|---|---------------|
| | <u>Acres</u> | <u>Acres</u> | <u>Acres</u> | <u>Acres</u> | <u>Acres</u> | <u>Acres</u> |
| Longleaf pine | 5,200 | 525,900 | 1,381,800 | 358,200 | 5,041,400 | 7,312,500 |
| Slash pine | 96,300 | 873,000 | 752,600 | 901,000 | 3,415,300 | 6,038,200 |
| Loblolly pine | 64,500 | 120,400 | 124,300 | 121,100 | 239,400 | 669,700 |
| Pond pine | 5,900 | 47,900 | 55,500 | 57,700 | 215,300 | 382,300 |
| Sand pine | -- | 15,600 | 92,500 | 144,000 | 136,000 | 388,100 |
| Cypress | 31,400 | 499,000 | 381,700 | 142,100 | 227,900 | 1,282,100 |
| All sftwd. types | 203,300 | 2,081,800 | 2,788,400 | 1,724,100 | 9,275,300 | 16,072,900 |
| Lowland hardwoods | 280,100 | 660,200 | 654,500 | 505,200 | 655,700 | 2,755,700 |
| Upland hardwoods | 2,700 | 5,400 | 87,300 | 66,300 | 425,000 | 586,700 |
| Scrub oak | -- | -- | -- | -- | 1,894,700 | 1,894,700 |
| All hdwd. types | 282,800 | 665,600 | 741,800 | 571,500 | 2,975,400 | 5,237,100 |
| Palm | -- | -- | -- | -- | 141,100 | 141,100 |
| All types | 486,100 | 2,747,400 | 3,530,200 | 2,295,600 | 12,391,800 | 21,451,100 |
| Percent | 2.3 | 12.8 | 16.4 | 10.7 | 57.8 | 100.0 |

^{1/} See description of forest types and stand-size classes in appendix.

Table 4.--Net volume^{1/} of saw timber by species and stand-size class, 1949

(in thousand board feet)

| Species ^{2/} | Large saw-timber stands | Small saw-timber stands | Pole- timber stands | Seedling & sapling stands | Poorly stocked stands & unstocked areas | All stands |
|-----------------------|-------------------------------|-------------------------------|---------------------------|---------------------------------|---|---------------|
| Softwoods: | | | | | | |
| Longleaf pine | 13,900 | 1,876,900 | 1,026,400 | 183,400 | 1,362,100 | 4,462,700 |
| Slash pine | 649,100 | 3,453,800 | 770,400 | 395,500 | 1,036,900 | 6,305,700 |
| Loblolly pine | 319,600 | 727,100 | 100,400 | 56,400 | 98,000 | 1,301,500 |
| Pond pine | 21,100 | 159,500 | 38,800 | 25,800 | 98,700 | 343,900 |
| Other pines | 123,900 | 73,900 | 36,300 | 22,900 | 19,700 | 276,700 |
| Total | 1,127,600 | 6,291,200 | 1,972,300 | 684,000 | 2,615,400 | 12,690,500 |
| Cypress | 225,400 | 2,262,800 | 364,400 | 95,000 | 147,400 | 3,095,000 |
| Cedar | 19,100 | 29,600 | 8,300 | -- | 34,200 | 91,200 |
| Total sftwds. | 1,372,100 | 8,583,600 | 2,345,000 | 779,000 | 2,797,000 | 15,876,700 |
| Hardwoods: | | | | | | |
| Tupelo | 441,100 | 852,400 | 171,900 | 78,800 | 33,700 | 1,577,900 |
| Sweetgum | 196,900 | 294,100 | 54,600 | 56,300 | 27,200 | 629,100 |
| Soft maple | 38,400 | 125,000 | 15,400 | 4,900 | 6,000 | 189,700 |
| Other soft hdwds. | 144,600 | 367,300 | 107,400 | 26,900 | 38,800 | 685,000 |
| Total | 821,000 | 1,638,800 | 349,300 | 166,900 | 105,700 | 3,081,700 |
| Red oaks | 147,900 | 334,600 | 128,400 | 62,400 | 94,300 | 767,600 |
| White oaks | 146,700 | 70,800 | 63,100 | 16,300 | 21,800 | 318,700 |
| Hickory | 37,300 | 52,000 | 35,200 | 22,500 | 10,000 | 157,000 |
| Ash | 46,300 | 122,200 | 28,300 | 4,500 | 7,100 | 208,400 |
| Other hard hdwds. | 77,000 | 67,000 | 25,000 | 3,700 | 11,200 | 183,900 |
| Total | 455,200 | 646,600 | 280,000 | 109,400 | 144,400 | 1,635,600 |
| Total hdwds. | 1,276,200 | 2,285,400 | 629,300 | 276,300 | 250,100 | 4,717,300 |
| All species | 2,648,300 | 10,869,000 | 2,974,300 | 1,055,300 | 3,047,100 | 20,594,000 |
| Percent | 12.9 | 52.8 | 14.4 | 5.1 | 14.8 | 100.0 |

^{1/} Log scale, International 1/4-inch rule.

^{2/} See appendix for species combined with others.

Table 7.--Net volume^{1/} of all timber by species and stand-size class, 1949

PRIMARY GROWING STOCK (in thousand cords)

| Species | Large saw-timber stands | Small saw-timber stands | Pole- timber stands | Seedling & sapling stands | Poorly stocked stands & unstocked areas | All stands |
|-------------------|-------------------------------|-------------------------------|---------------------------|---------------------------------|---|---------------|
| Softwoods: | | | | | | |
| Longleaf pine | 35 | 7,210 | 8,830 | 991 | 7,182 | 24,248 |
| Slash pine | 1,641 | 12,863 | 6,303 | 2,048 | 4,514 | 27,369 |
| Loblolly pine | 788 | 2,090 | 677 | 416 | 351 | 4,322 |
| Pond pine | 61 | 524 | 255 | 140 | 385 | 1,365 |
| Other pines | 282 | 242 | 604 | 166 | 70 | 1,364 |
| Total | 2,807 | 22,929 | 16,669 | 3,761 | 12,502 | 58,668 |
| Cypress | 556 | 9,734 | 4,085 | 521 | 650 | 15,546 |
| Cedar | 49 | 74 | 35 | 20 | 112 | 290 |
| Total sftwds. | 3,412 | 32,737 | 20,789 | 4,302 | 13,264 | 74,504 |
| Hardwoods: | | | | | | |
| Tupelo | 1,367 | 4,814 | 2,136 | 596 | 229 | 9,142 |
| Sweetgum | 635 | 1,272 | 867 | 353 | 173 | 3,300 |
| Soft maple | 206 | 871 | 406 | 149 | 119 | 1,751 |
| Other soft hwdws. | 661 | 1,902 | 1,159 | 242 | 320 | 4,284 |
| Total | 2,869 | 8,859 | 4,568 | 1,340 | 841 | 18,477 |
| Red oaks | 487 | 1,554 | 1,226 | 335 | 478 | 4,080 |
| White oaks | 409 | 277 | 383 | 73 | 182 | 1,324 |
| Hickory | 138 | 199 | 262 | 146 | 43 | 788 |
| Ash | 250 | 828 | 478 | 49 | 87 | 1,692 |
| Holly, dogwood | 118 | 44 | 142 | 19 | 33 | 356 |
| Other hard hwdws. | 271 | 337 | 270 | 41 | 124 | 1,043 |
| Total | 1,673 | 3,239 | 2,761 | 663 | 947 | 9,283 |
| Total hwdws. | 4,542 | 12,098 | 7,329 | 2,003 | 1,788 | 27,760 |
| Total primary | 7,954 | 44,835 | 28,118 | 6,305 | 15,052 | 102,264 |
| Percent | 7.8 | 43.8 | 27.5 | 6.2 | 14.7 | 100.0 |

SECONDARY GROWING STOCK (in thousand cords)

| | | | | | | |
|-----------------|-------|--------|-------|-------|--------|--------|
| Sound culls | | | | | | |
| Softwoods | 31 | 724 | 788 | 145 | 778 | 2,466 |
| Hardwoods | 2,150 | 5,153 | 4,109 | 1,790 | 9,502 | 22,704 |
| Rotten culls | 1,905 | 4,889 | 3,746 | 1,679 | 2,826 | 15,045 |
| Palms | 631 | 1,627 | 1,137 | 910 | 5,621 | 9,926 |
| Total secondary | 4,717 | 12,393 | 9,780 | 4,524 | 18,727 | 50,141 |

^{1/} Sound wood and bark.

Table 8.--Net volume^{1/} of all timber by species and diameter class, 1949

PRIMARY GROWING STOCK (in thousand cords)

| Species | Pole trees | | Saw-timber trees | | | | All diameters |
|-------------------|------------|----------|------------------|-----------|--------------|------------|---------------|
| | 6 inches | 8 inches | 10 inches | 12 inches | 14-18 inches | 20+ inches | |
| Softwoods: | | | | | | | |
| Longleaf pine | 4,733 | 7,044 | 6,671 | 3,825 | 1,894 | 81 | 24,248 |
| Slash pine | 4,736 | 5,500 | 6,141 | 5,216 | 5,272 | 504 | 27,369 |
| Loblolly pine | 434 | 610 | 573 | 695 | 1,683 | 327 | 4,322 |
| Pond pine | 164 | 306 | 186 | 291 | 397 | 21 | 1,365 |
| Other pines | 382 | 295 | 145 | 154 | 234 | 154 | 1,364 |
| Total | 10,449 | 13,755 | 13,716 | 10,181 | 9,480 | 1,087 | 58,668 |
| Cypress | 3,659 | 4,139 | 2,888 | 2,459 | 2,210 | 191 | 15,546 |
| Cedar | 33 | 43 | 52 | 47 | 96 | 19 | 290 |
| Total sftwds. | 14,141 | 17,937 | 16,656 | 12,687 | 11,786 | 1,297 | 74,504 |
| Hardwoods: | | | | | | | |
| Tupelo | 1,542 | 1,589 | 1,730 | 1,255 | 2,225 | 801 | 9,142 |
| Sweetgum | 684 | 478 | 489 | 420 | 954 | 275 | 3,300 |
| Soft maple | 454 | 431 | 357 | 159 | 278 | 72 | 1,751 |
| Other soft hdwds. | 656 | 874 | 917 | 552 | 1,078 | 207 | 4,284 |
| Total | 3,336 | 3,372 | 3,493 | 2,386 | 4,535 | 1,355 | 18,477 |
| Red oaks | 617 | 773 | 640 | 471 | 1,067 | 512 | 4,080 |
| White oaks | 85 | 232 | 195 | 125 | 273 | 414 | 1,324 |
| Hickory | 133 | 118 | 120 | 126 | 213 | 78 | 788 |
| Ash | 383 | 419 | 321 | 208 | 313 | 48 | 1,692 |
| Holly, dogwood | 226 | 87 | 30 | 10 | 3 | -- | 356 |
| Other hard hdwds. | 160 | 194 | 222 | 113 | 228 | 126 | 1,043 |
| Total | 1,604 | 1,823 | 1,528 | 1,053 | 2,097 | 1,178 | 9,283 |
| Total hdwds. | 4,940 | 5,195 | 5,021 | 3,439 | 6,632 | 2,533 | 27,760 |
| Total primary | 19,081 | 23,132 | 21,677 | 16,126 | 18,418 | 3,830 | 102,264 |
| Percent | 18.7 | 22.6 | 21.2 | 15.8 | 18.0 | 3.7 | 100.0 |

SECONDARY GROWING STOCK (in thousand cords)

| | | | | | | | |
|-----------------|-------|-------|-------|-------|-------|-------|--------|
| Sound culls | | | | | | | |
| Softwoods | 725 | 549 | 526 | 255 | 274 | 137 | 2,466 |
| Hardwoods | 5,090 | 3,793 | 3,450 | 3,161 | 4,607 | 2,603 | 22,704 |
| Rotten culls | 978 | 1,546 | 1,450 | 1,444 | 4,183 | 5,444 | 15,045 |
| Palms | 196 | 1,050 | 4,200 | 3,655 | 825 | -- | 9,926 |
| Total secondary | 6,989 | 6,938 | 9,626 | 8,515 | 9,889 | 8,184 | 50,141 |

^{1/} Sound wood and bark.

Table 9.--Net volume^{1/} of all timber by species and class of material, 1949

(in thousand cords)

| Species | PRIMARY | | | | SECONDARY | |
|-------------------|------------------|-------------|-------------------|-------------------|---------------------------|--------------|
| | Saw-timber trees | | Pole-timber trees | Total sound trees | Sound culls ^{2/} | Rotten culls |
| | Sawlog portion | Upper stems | | | | |
| Softwoods: | | | | | | |
| Longleaf pine | 10,148 | 2,323 | 11,777 | 24,248 | 174 | 39 |
| Slash pine | 13,824 | 3,309 | 10,236 | 27,369 | 446 | 85 |
| Loblolly pine | 2,616 | 662 | 1,044 | 4,322 | 198 | 62 |
| Pond pine | 733 | 162 | 470 | 1,365 | 125 | 45 |
| Other pines | 554 | 133 | 677 | 1,364 | 200 | 9 |
| Total | 27,875 | 6,589 | 24,204 | 58,668 | 1,143 | 240 |
| Cypress | 6,170 | 1,578 | 7,798 | 15,546 | 1,269 | 1,716 |
| Cedar | 172 | 42 | 76 | 290 | 54 | 45 |
| Total sftwds. | 34,217 | 8,209 | 32,078 | 74,504 | 2,466 | 2,001 |
| Hardwoods: | | | | | | |
| Tupelo | 3,466 | 815 | 4,861 | 9,142 | 2,669 | 3,591 |
| Sweetgum | 1,328 | 321 | 1,651 | 3,300 | 956 | 682 |
| Soft maple | 408 | 101 | 1,242 | 1,751 | 1,282 | 1,147 |
| Other soft hwdws. | 1,493 | 344 | 2,447 | 4,284 | 1,862 | 1,817 |
| Total | 6,695 | 1,581 | 10,201 | 18,477 | 6,769 | 7,237 |
| Red oaks | 1,677 | 373 | 2,030 | 4,080 | 2,673 | 2,824 |
| White oaks | 658 | 154 | 512 | 1,324 | 3,835 | 1,672 |
| Hickory | 336 | 81 | 371 | 788 | 269 | 175 |
| Ash | 466 | 103 | 1,123 | 1,692 | 1,185 | 838 |
| Holly, dogwood | 13 | -- | 343 | 356 | 23 | 44 |
| Scrub oak | -- | -- | -- | -- | 7,341 | -- |
| Other hard hwdws. | 372 | 95 | 576 | 1,043 | 609 | 254 |
| Total | 3,522 | 806 | 4,955 | 9,283 | 15,935 | 5,807 |
| Total hwdws. | 10,217 | 2,387 | 15,156 | 27,760 | 22,704 | 13,044 |
| All species | 44,434 | 10,596 | 47,234 | 102,264 | 25,170 | 15,045 |
| Percent | 43.4 | 10.4 | 46.2 | 100.0 | 62.6 | 37.4 |

^{1/} Sound wood and bark, excluding volume of palms shown in tables 7 and 8.

^{2/} Includes limb volume of sound hardwood saw-timber trees.

Table 10.--Net volume^{1/} of all timber by forest type and stand-size class, 1949

PRIMARY GROWING STOCK (in thousand cords)

| Forest type | Large saw-timber stands | Small saw-timber stands | Pole- timber stands | Seedling & sapling stands | Poorly stocked stands & unstocked areas | All stands |
|------------------|-------------------------------|-------------------------------|---------------------------|---------------------------------|---|---------------|
| Longleaf pine | 54 | 7,008 | 9,055 | 795 | 6,912 | 23,824 |
| Slash pine | 1,935 | 13,501 | 6,148 | 2,182 | 4,554 | 28,320 |
| Loblolly pine | 972 | 2,292 | 931 | 461 | 314 | 4,970 |
| Pond pine | 52 | 523 | 228 | 98 | 312 | 1,213 |
| Sand pine | -- | 153 | 594 | 57 | 58 | 862 |
| Cypress | 536 | 10,580 | 3,928 | 387 | 481 | 15,912 |
| All sftwd. types | 3,549 | 34,057 | 20,884 | 3,980 | 12,631 | 75,101 |
| Lowland hdwds. | 4,383 | 10,744 | 6,775 | 2,102 | 1,639 | 25,643 |
| Upland hdwds. | 22 | 34 | 459 | 223 | 321 | 1,059 |
| Scrub oak | -- | -- | -- | -- | 461 | 461 |
| All hdwd. types | 4,405 | 10,778 | 7,234 | 2,325 | 2,421 | 27,163 |
| All types | 7,954 | 44,835 | 28,118 | 6,305 | 15,052 | 102,264 |
| Percent | 7.8 | 43.8 | 27.5 | 6.2 | 14.7 | 100.0 |

SECONDARY GROWING STOCK (in thousand cords)

| | | | | | | |
|------------------|-------|--------|-------|-------|--------|--------|
| Longleaf pine | 5 | 333 | 462 | 98 | 2,006 | 2,904 |
| Slash pine | 275 | 1,122 | 494 | 250 | 695 | 2,836 |
| Loblolly pine | 213 | 469 | 405 | 351 | 452 | 1,890 |
| Pond pine | 11 | 62 | 22 | 32 | 27 | 154 |
| Sand pine | -- | 14 | 116 | 12 | 45 | 187 |
| Cypress | 229 | 1,902 | 956 | 154 | 451 | 3,692 |
| All sftwd. types | 733 | 3,902 | 2,455 | 897 | 3,676 | 11,663 |
| Lowland hdwds. | 3,346 | 6,815 | 5,829 | 2,394 | 4,547 | 22,931 |
| Upland hdwds. | 7 | 49 | 359 | 323 | 1,726 | 2,464 |
| Scrub oak | -- | -- | -- | -- | 3,157 | 3,157 |
| All hdwd. types | 3,353 | 6,864 | 6,188 | 2,717 | 9,430 | 28,552 |
| All types | 4,086 | 10,766 | 8,643 | 3,614 | 13,106 | 40,215 |
| Percent | 10.1 | 26.8 | 21.5 | 9.0 | 32.6 | 100.0 |

^{1/} Sound wood and bark, excluding volume of palms shown in tables 7 and 8.

Table 11.--Net volume^{1/} of pole-timber trees by forest type and stand-size class,
1949

PRIMARY GROWING STOCK (in thousand cords)

| Forest type | Large saw-timber stands | Small saw-timber stands | Pole- timber stands | Seedling & sapling stands | Poorly stocked stands & unstocked areas | All stands |
|------------------|-------------------------------|-------------------------------|---------------------------|---------------------------------|---|---------------|
| Longleaf pine | 10 | 2,077 | 6,059 | 439 | 3,291 | 11,876 |
| Slash pine | 338 | 4,038 | 4,335 | 1,034 | 1,973 | 11,718 |
| Loblolly pine | 114 | 502 | 662 | 308 | 134 | 1,720 |
| Pond pine | 6 | 115 | 133 | 20 | 111 | 385 |
| Sand pine | -- | 29 | 504 | 55 | 7 | 595 |
| Cypress | 84 | 4,500 | 3,019 | 229 | 199 | 8,031 |
| All sftwd. types | 552 | 11,261 | 14,712 | 2,085 | 5,715 | 34,325 |
| Lowland hdwds. | 948 | 4,294 | 4,870 | 1,272 | 813 | 12,197 |
| Upland hdwds. | 3 | 19 | 312 | 113 | 109 | 556 |
| Scrub oak | -- | -- | -- | -- | 156 | 156 |
| All hdwd. types | 951 | 4,313 | 5,182 | 1,385 | 1,078 | 12,909 |
| All types | 1,503 | 15,574 | 19,894 | 3,470 | 6,793 | 47,234 |
| Percent | 3.2 | 33.0 | 42.1 | 7.3 | 14.4 | 100.0 |

SECONDARY GROWING STOCK (in thousand cords)

| | | | | | | |
|------------------|-------|-------|-------|-------|-------|--------|
| Longleaf pine | 3 | 257 | 292 | 79 | 1,248 | 1,879 |
| Slash pine | 135 | 487 | 302 | 121 | 388 | 1,433 |
| Loblolly pine | 64 | 174 | 178 | 112 | 102 | 630 |
| Pond pine | 5 | 28 | 20 | 1 | 5 | 59 |
| Sand pine | -- | 6 | 70 | 12 | 11 | 99 |
| Cypress | 92 | 880 | 644 | 63 | 269 | 1,948 |
| All sftwd. types | 299 | 1,832 | 1,506 | 388 | 2,023 | 6,048 |
| Lowland hdwds. | 730 | 1,895 | 2,288 | 1,022 | 1,924 | 7,859 |
| Upland hdwds. | 4 | 9 | 219 | 109 | 603 | 944 |
| Scrub oak | -- | -- | -- | -- | 2,456 | 2,456 |
| All hdwd. types | 734 | 1,904 | 2,507 | 1,131 | 4,983 | 11,259 |
| All types | 1,033 | 3,736 | 4,013 | 1,519 | 7,006 | 17,307 |
| Percent | 5.9 | 21.6 | 23.2 | 8.8 | 40.5 | 100.0 |

^{1/} Sound wood and bark, excluding volume of palms shown in tables 7 and 8.

Table 12.--Net volume^{1/} of all timber by species and diameter class, 1949

| PRIMARY GROWING STOCK (in thousand cubic feet) | | | | | | | |
|--|------------|-----------|------------------|-----------|--------------|------------|---------------|
| Species | Pole trees | | Saw-timber trees | | | | All diameters |
| | 6 inches | 8 inches | 10 inches | 12 inches | 14-18 inches | 20+ inches | |
| Softwoods: | | | | | | | |
| Longleaf pine | 277,911 | 474,081 | 482,643 | 289,482 | 150,495 | 7,017 | 1,681,629 |
| Slash pine | 278,411 | 369,363 | 444,879 | 394,564 | 420,234 | 42,429 | 1,949,880 |
| Loblolly pine | 25,513 | 41,474 | 41,313 | 52,781 | 134,520 | 28,089 | 323,690 |
| Pond pine | 9,684 | 20,859 | 13,569 | 22,169 | 31,881 | 1,747 | 99,909 |
| Other pines | 22,600 | 19,757 | 10,424 | 11,715 | 18,667 | 13,268 | 96,431 |
| Total | 614,119 | 925,534 | 992,828 | 770,711 | 755,797 | 92,550 | 4,151,539 |
| Cypress | 240,386 | 309,252 | 230,258 | 207,541 | 193,382 | 18,059 | 1,198,878 |
| Cedar | 2,193 | 3,278 | 4,175 | 4,410 | 8,935 | 816 | 23,807 |
| Total sftwds. | 856,698 | 1,238,064 | 1,227,261 | 982,662 | 958,114 | 111,425 | 5,374,224 |
| Hardwoods: | | | | | | | |
| Tupelo | 93,459 | 104,215 | 120,233 | 95,288 | 176,135 | 65,115 | 654,445 |
| Sweetgum | 41,464 | 32,227 | 33,915 | 31,597 | 75,406 | 22,620 | 237,229 |
| Soft maple | 27,302 | 28,914 | 24,926 | 11,951 | 21,786 | 5,928 | 120,807 |
| Other soft hwdws. | 39,622 | 58,644 | 63,523 | 42,302 | 86,005 | 16,904 | 307,000 |
| Total | 201,847 | 224,000 | 242,597 | 181,138 | 359,332 | 110,567 | 1,319,481 |
| Red oaks | 37,267 | 50,918 | 43,898 | 35,816 | 85,054 | 42,059 | 295,012 |
| White oaks | 5,087 | 15,282 | 13,074 | 9,551 | 21,658 | 33,850 | 98,502 |
| Hickory | 7,998 | 7,899 | 8,186 | 9,429 | 16,922 | 6,383 | 56,817 |
| Ash | 23,001 | 27,224 | 22,049 | 15,747 | 24,781 | 3,773 | 116,575 |
| Holly, dogwood | 13,522 | 6,080 | 2,084 | 738 | 218 | -- | 22,642 |
| Other hard hwdws. | 9,776 | 12,716 | 14,803 | 8,512 | 18,126 | 10,267 | 74,200 |
| Total | 96,651 | 120,119 | 104,094 | 79,793 | 166,759 | 96,332 | 663,748 |
| Total hwdws. | 298,498 | 344,119 | 346,691 | 260,931 | 526,091 | 206,899 | 1,983,229 |
| Total primary | 1,155,196 | 1,582,183 | 1,573,952 | 1,243,593 | 1,484,205 | 318,324 | 7,357,453 |
| Percent | 15.7 | 21.5 | 21.4 | 16.9 | 20.2 | 4.3 | 100.0 |
| SECONDARY GROWING STOCK (in thousand cubic feet) | | | | | | | |
| Sound culls | | | | | | | |
| Softwoods | 46,242 | 39,672 | 40,416 | 20,083 | 22,552 | 12,638 | 181,603 |
| Hardwoods | 308,723 | 249,602 | 239,976 | 233,964 | 362,533 | 212,272 | 1,607,070 |
| Rotten culls | 59,972 | 100,251 | 103,551 | 111,218 | 337,847 | 454,357 | 1,167,196 |
| Palms | 18,355 | 103,515 | 424,824 | 376,136 | 86,442 | -- | 1,009,272 |
| Total secondary | 433,292 | 493,040 | 808,767 | 741,401 | 809,374 | 679,267 | 3,965,141 |

^{1/} Excluding bark.

Table 13.--Net volume^{1/} of all timber by species and class of material, 1949

(in thousand cubic feet)

| Species | PRIMARY | | | | SECONDARY | |
|-------------------|------------------|-------------|-------------------|-------------------|---------------------------|--------------|
| | Saw-timber trees | | Pole-timber trees | Total sound trees | Sound culls ^{2/} | Rotten culls |
| | Sawlog portion | Upper stems | | | | |
| Softwoods: | | | | | | |
| Longleaf pine | 767,291 | 162,346 | 751,992 | 1,681,629 | 12,960 | 2,947 |
| Slash pine | 1,065,346 | 236,760 | 647,774 | 1,949,880 | 30,994 | 6,131 |
| Loblolly pine | 207,446 | 49,257 | 66,987 | 323,690 | 15,271 | 4,326 |
| Pond pine | 56,477 | 12,889 | 30,543 | 99,909 | 8,916 | 3,656 |
| Other pines | 43,592 | 10,482 | 42,357 | 96,431 | 14,315 | 529 |
| Total | 2,140,152 | 471,734 | 1,539,653 | 4,151,539 | 82,456 | 17,589 |
| Cypress | 532,555 | 116,685 | 549,638 | 1,198,878 | 93,840 | 146,205 |
| Cedar | 14,816 | 3,520 | 5,471 | 23,807 | 5,307 | 3,905 |
| Total sftwds. | 2,687,523 | 591,939 | 2,094,762 | 5,374,224 | 181,603 | 167,699 |
| Hardwoods: | | | | | | |
| Tupelo | 276,482 | 60,056 | 317,907 | 654,445 | 192,019 | 275,605 |
| Sweetgum | 105,862 | 23,761 | 107,606 | 237,229 | 68,408 | 52,193 |
| Soft maple | 32,537 | 7,128 | 81,142 | 120,807 | 90,267 | 85,726 |
| Other soft hwdws. | 119,283 | 25,928 | 161,789 | 307,000 | 133,732 | 138,629 |
| Total | 534,164 | 116,873 | 668,444 | 1,319,481 | 484,426 | 552,153 |
| Red oaks | 134,049 | 28,880 | 132,083 | 295,012 | 196,767 | 220,360 |
| White oaks | 52,937 | 12,122 | 33,443 | 98,502 | 286,669 | 130,903 |
| Hickory | 26,808 | 5,926 | 24,083 | 56,817 | 20,005 | 13,709 |
| Ash | 36,344 | 7,957 | 72,274 | 116,575 | 80,127 | 61,201 |
| Holly, dogwood | 956 | -- | 21,686 | 22,642 | 1,562 | 2,779 |
| Scrub oak | -- | -- | -- | -- | 493,850 | -- |
| Other hard hwdws. | 29,892 | 7,013 | 37,295 | 74,200 | 43,664 | 18,392 |
| Total | 280,986 | 61,898 | 320,864 | 663,748 | 1,122,644 | 447,344 |
| Total hwdws. | 815,150 | 178,771 | 989,308 | 1,983,229 | 1,607,070 | 999,497 |
| All species | 3,502,673 | 770,710 | 3,084,070 | 7,357,453 | 1,788,673 | 1,167,196 |
| Percent | 47.6 | 10.5 | 41.9 | 100.0 | 60.5 | 39.5 |

^{1/} Excluding bark and volume of palms shown in table 12.^{2/} Includes limb volume of sound hardwood saw-timber trees.

Table 14.--Average volume $\frac{1}{2}$ per acre of saw timber by forest type, species group, and stand-size class, 1949

(in board feet)

| Forest type and species group | Large saw-timber stands | Small saw-timber stands | Pole-timber stands | Seedling & sapling stands | Poorly stocked stands & unstocked areas | All stands |
|-------------------------------|-------------------------|-------------------------|--------------------|---------------------------|---|------------|
| Longleaf pine | | | | | | |
| Softwood | 3,692 | 3,386 | 753 | 359 | 256 | 582 |
| Hardwood | -- | 13 | 12 | 2 | 2 | 4 |
| Slash pine | | | | | | |
| Softwood | 6,355 | 3,855 | 829 | 462 | 280 | 989 |
| Hardwood | 517 | 63 | 30 | 2 | 1 | 22 |
| Loblolly pine | | | | | | |
| Softwood | 5,177 | 5,113 | 523 | 211 | 275 | 1,652 |
| Hardwood | 509 | 609 | 274 | 260 | 18 | 263 |
| Pond pine | | | | | | |
| Softwood | 2,954 | 3,159 | 674 | 514 | 345 | 811 |
| Hardwood | -- | 60 | -- | -- | -- | 7 |
| Sand pine | | | | | | |
| Softwood | -- | 2,833 | 235 | 6 | 137 | 220 |
| Hardwood | -- | -- | 95 | -- | -- | 23 |
| Cypress | | | | | | |
| Softwood | 5,199 | 4,395 | 883 | 411 | 478 | 2,232 |
| Hardwood | 1,102 | 332 | 8 | 19 | 14 | 163 |
| Lowland hardwoods | | | | | | |
| Softwood | 809 | 656 | 323 | 219 | 211 | 406 |
| Hardwood | 4,108 | 2,994 | 765 | 410 | 274 | 1,457 |
| Upland hardwoods | | | | | | |
| Softwood | -- | 190 | 86 | 135 | 84 | 90 |
| Hardwood | 2,988 | 828 | 506 | 484 | 114 | 234 |
| Scrub oak | | | | | | |
| Softwood | -- | -- | -- | -- | 58 | 58 |
| Hardwood | -- | -- | -- | -- | 1 | 1 |
| All types | | | | | | |
| Softwood | 2,823 | 3,124 | 664 | 339 | 228 | 745 |
| Hardwood | 2,625 | 832 | 178 | 120 | 20 | 221 |

$\frac{1}{2}$ Log scale, International 1/4-inch rule.

Table 15.--Average volume^{1/} per acre of all timber by forest type, species group,
and stand-size class, 1949

(in standard cords)

| Forest type and species group | Large saw-timber stands | | Small saw-timber stands | | Pole- timber stands | | Other stand sizes | | All stands | |
|-------------------------------------|-------------------------------|--------------------|-------------------------------|------|---------------------------|------|-------------------------|------|---------------|------|
| | Sound ^{2/} | Cull ^{2/} | Sound | Cull | Sound | Cull | Sound | Cull | Sound | Cull |
| Longleaf pine | | | | | | | | | | |
| Softwood | 10.4 | -- | 13.2 | 0.1 | 6.4 | 0.1 | 1.4 | (3/) | 3.2 | (3/) |
| Hardwood | -- | 1.0 | 0.1 | 0.5 | 0.1 | 0.3 | (3/) | 0.4 | (3/) | 0.4 |
| Slash pine | | | | | | | | | | |
| Softwood | 16.3 | 0.3 | 14.6 | 0.3 | 7.9 | 0.2 | 1.5 | 0.1 | 4.4 | 0.1 |
| Hardwood | 3.8 | 2.6 | 0.9 | 1.0 | 0.3 | 0.4 | (3/) | 0.1 | 0.3 | 0.3 |
| Loblolly pine | | | | | | | | | | |
| Softwood | 12.6 | 0.1 | 14.9 | 0.5 | 4.7 | 0.4 | 1.5 | 0.2 | 5.6 | 0.3 |
| Hardwood | 2.5 | 3.2 | 4.2 | 3.4 | 2.8 | 2.9 | 0.6 | 2.0 | 1.8 | 2.5 |
| Pond pine | | | | | | | | | | |
| Softwood | 8.8 | 0.8 | 10.5 | 0.3 | 3.9 | 0.4 | 1.5 | 0.2 | 3.1 | 0.2 |
| Hardwood | -- | 1.0 | 0.4 | 1.0 | 0.2 | -- | -- | (3/) | 0.1 | 0.2 |
| Sand pine | | | | | | | | | | |
| Softwood | -- | -- | 9.8 | 0.9 | 5.7 | 1.1 | 0.4 | 0.1 | 2.0 | 0.4 |
| Hardwood | -- | -- | -- | -- | 0.7 | 0.1 | -- | 0.1 | 0.2 | 0.1 |
| Cypress | | | | | | | | | | |
| Softwood | 12.0 | 1.6 | 18.7 | 1.7 | 9.7 | 2.1 | 2.2 | 1.2 | 11.1 | 1.7 |
| Hardwood | 5.0 | 5.7 | 2.5 | 2.1 | 0.6 | 0.4 | 0.1 | 0.4 | 1.3 | 1.2 |
| Lowland hardwoods | | | | | | | | | | |
| Softwood | 1.9 | 0.4 | 1.9 | 0.3 | 1.4 | 0.2 | 0.8 | 0.1 | 1.3 | 0.2 |
| Hardwood | 13.7 | 11.6 | 14.4 | 10.1 | 9.0 | 8.7 | 2.4 | 5.8 | 8.0 | 8.1 |
| Upland hardwoods | | | | | | | | | | |
| Softwood | -- | -- | 0.6 | -- | 0.4 | -- | 0.2 | (3/) | 0.2 | (3/) |
| Hardwood | 7.9 | 2.5 | 5.8 | 9.2 | 4.9 | 4.1 | 0.7 | 3.2 | 1.2 | 3.4 |
| Scrub oak | | | | | | | | | | |
| Softwood | -- | -- | -- | -- | -- | -- | 0.2 | (3/) | 0.2 | (3/) |
| Hardwood | -- | -- | -- | -- | -- | -- | (3/) | 1.7 | (3/) | 1.7 |
| All types | | | | | | | | | | |
| Softwood | 7.0 | 0.4 | 11.9 | 0.5 | 5.9 | 0.4 | 1.2 | 0.1 | 3.5 | 0.2 |
| Hardwood | 9.3 | 8.0 | 4.4 | 3.4 | 2.1 | 2.1 | 0.3 | 1.0 | 1.3 | 1.7 |

1/ Sound wood and bark, excluding volume of palms.

2/ Sound trees; cull trees.

3/ Less than 0.05 cords per acre.

Table 16.--Number^{1/} of turpentine pine trees by working status
and tree size, 1949
(in thousands of trees)

| Working status | Pole- size trees | Small saw-timber trees | Large saw-timber trees | All trees |
|-------------------|------------------------|------------------------------|------------------------------|--------------|
| Round timber | 306,118 | 102,246 | 3,925 | 412,289 |
| Working timber | 734 | 12,803 | 355 | 13,892 |
| Resting timber | 1,486 | 13,639 | 750 | 15,875 |
| Abandoned timber | 936 | 6,246 | 603 | 7,785 |
| Worked-out timber | 586 | 6,627 | 564 | 7,777 |
| All classes | 309,860 | 141,561 | 6,197 | 457,618 |

^{1/} Includes sound cull trees.

Table 17.--Area of turpentine timber crops by working status,
1949

| Crop working status | Area | |
|---------------------|--------------|----------------|
| | <u>Acres</u> | <u>Percent</u> |
| Round timber | 1,542,300 | 49.1 |
| Working timber | | |
| Front-faced | 372,300 | 11.8 |
| Back-faced | 256,600 | 8.2 |
| Resting timber | 514,100 | 16.4 |
| Abandoned timber | 255,400 | 8.1 |
| Worked-out timber | 202,700 | 6.4 |
| All classes | 3,143,400 | 100.0 |

Table 18. -- Area of stump land and tonnage of wood naval stores stumps
by availability class, 1949

| Availability class | Area | Tonnage ^{1/} |
|------------------------------|--------------|--------------------------------|
| | <u>Acres</u> | <u>Thousand</u> <u>tons</u> |
| Merchantable area | 9,870,200 | ^{4/} 26,551 |
| Marginal area ^{2/} | 401,500 | 1,065 |
| Potential area ^{3/} | 548,000 | 1,489 |
| Inaccessible area | 228,800 | 629 |
| All classes | 11,048,500 | 29,734 |

^{1/} Includes stumps on agricultural land.

^{2/} Stump-land areas less than 25 acres in extent and partially worked areas.

^{3/} Unworkable at present due to density of timber stands.

^{4/} A check on the tons of stumps harvested under existing practices indicates the recoverable tonnage is approximately two-thirds of the merchantable volume shown.

Table 19.--Number of trees^{1/} by species group, quality class, and tree size,
1949

(in thousands of trees)

| Species group and quality class | Sapling- size trees | Pole- size trees | Small saw-timber trees | Large saw-timber trees | All trees |
|---------------------------------------|---------------------------|------------------------|------------------------------|------------------------------|--------------|
| Yellow pines: | | | | | |
| Sound trees | 1,169,968 | 338,729 | 155,749 | 8,632 | 1,673,078 |
| Sound culls | 67,791 | 6,159 | 2,868 | 343 | 77,161 |
| Rotten culls | 45,413 | 1,617 | 1,083 | 185 | 48,298 |
| Total | 1,283,172 | 346,505 | 159,700 | 9,160 | 1,798,537 |
| Other softwoods: | | | | | |
| Sound trees | 310,301 | 117,088 | 42,838 | 2,080 | 472,307 |
| Sound culls | 53,389 | 12,762 | 2,907 | 141 | 69,199 |
| Rotten culls | 29,691 | 11,158 | 7,058 | 1,898 | 49,805 |
| Total | 393,381 | 141,008 | 52,803 | 4,119 | 591,311 |
| Soft-textured hwdws.: | | | | | |
| Sound trees | 590,848 | 126,737 | 27,200 | 4,581 | 749,366 |
| Sound culls | 211,056 | 39,872 | 6,772 | 779 | 258,479 |
| Rotten culls | 83,736 | 42,085 | 14,717 | 5,155 | 145,693 |
| Total | 885,640 | 208,694 | 48,689 | 10,515 | 1,153,538 |
| Hard-textured hwdws.: | | | | | |
| Sound trees | 386,315 | 65,950 | 13,944 | 3,605 | 469,814 |
| Sound culls | 1,063,902 | 170,990 | 18,234 | 3,609 | 1,256,735 |
| Rotten culls | 55,661 | 27,534 | 8,643 | 4,739 | 96,577 |
| Total | 1,505,878 | 264,474 | 40,821 | 11,953 | 1,823,126 |
| Palms | (2/) | 17,943 | 51,917 | 119 | 69,979 |
| All species | 4,068,071 | 978,624 | 353,930 | 35,866 | 5,436,491 |

^{1/} All trees 1.0 inch d.b.h. and larger.

^{2/} Data not recorded.

Table 20.--Area of poorly stocked stands and unstocked areas by plantability class, 1949

| Forest type ^{1/} | No planting required ^{2/} | Suitable for machine planting | Hand planting required | All classes |
|---------------------------|--|-------------------------------------|------------------------------|----------------|
| | <u>Acres</u> | <u>Acres</u> | <u>Acres</u> | <u>Acres</u> |
| Longleaf pine | 2,291,200 | 2,618,800 | 131,400 | 5,041,400 |
| Slash pine | 1,298,400 | 1,661,000 | 455,900 | 3,415,300 |
| Loblolly pine | 137,000 | 73,700 | 28,700 | 239,400 |
| Pond pine | 124,100 | 63,000 | 28,200 | 215,300 |
| Sand pine | 39,100 | 71,300 | 25,600 | 136,000 |
| Upland hardwoods | 230,200 | 98,000 | 96,800 | 425,000 |
| Scrub oak | 176,500 | 1,433,600 | 284,600 | 1,894,700 |
| All types | 4,296,500 | 6,019,400 | 1,051,200 | 11,367,100 |
| Percent | 37.8 | 53.0 | 9.2 | 100.0 |

^{1/} Lowland types not classified.

^{2/} Sufficient seed trees present or area is restocking naturally.

Table 21.--Commercial forest area by forest type and degree of stocking, 1949

STOCKING IN SOUND TREES

| Forest type | Degree of stocking ^{1/} | | | | | Total area |
|----------------|----------------------------------|---------------|---------------|---------------|--------------|--------------|
| | 0-9 percent | 10-39 percent | 40-69 percent | 70-99 percent | 100+ percent | |
| | <u>Acres</u> | <u>Acres</u> | <u>Acres</u> | <u>Acres</u> | <u>Acres</u> | <u>Acres</u> |
| Longleaf pine | 3,859,500 | 2,441,100 | 648,100 | 224,700 | 139,100 | 7,312,500 |
| Slash pine | 2,753,800 | 1,750,400 | 630,300 | 374,100 | 529,600 | 6,038,200 |
| Loblolly pine | 165,700 | 201,200 | 150,000 | 42,200 | 110,600 | 669,700 |
| Pond pine | 149,600 | 179,800 | 47,400 | 5,500 | -- | 382,300 |
| Sand pine | 115,400 | 125,400 | 43,600 | 23,500 | 80,200 | 388,100 |
| Cypress | 158,400 | 212,200 | 221,300 | 275,300 | 414,900 | 1,282,100 |
| Lowland hdwds. | 337,000 | 662,100 | 828,500 | 407,700 | 520,400 | 2,755,700 |
| Upland hdwds. | 308,300 | 152,700 | 47,600 | 53,800 | 24,300 | 586,700 |
| Scrub oak | 1,748,500 | 123,000 | 23,200 | -- | -- | 1,894,700 |
| Palm | 141,100 | -- | -- | -- | -- | 141,100 |
| All types | 9,737,300 | 5,847,900 | 2,640,000 | 1,406,800 | 1,819,100 | 21,451,100 |
| Percent | 45.4 | 27.3 | 12.3 | 6.5 | 8.5 | 100.0 |

STOCKING IN TREES OF ALL QUALITY CLASSES^{2/}

| | | | | | | |
|----------------|-----------|-----------|-----------|-----------|-----------|------------|
| Longleaf pine | 3,312,700 | 2,362,100 | 906,500 | 450,800 | 280,400 | 7,312,500 |
| Slash pine | 2,555,700 | 1,734,600 | 665,500 | 389,800 | 692,600 | 6,038,200 |
| Loblolly pine | 73,300 | 184,900 | 111,400 | 112,700 | 187,400 | 669,700 |
| Pond pine | 141,700 | 171,800 | 54,100 | 3,700 | 11,000 | 382,300 |
| Sand pine | 90,800 | 58,700 | 72,500 | 41,800 | 124,300 | 388,100 |
| Cypress | 112,900 | 168,200 | 132,600 | 232,100 | 636,300 | 1,282,100 |
| Lowland hdwds. | 116,900 | 225,600 | 368,200 | 613,900 | 1,431,100 | 2,755,700 |
| Upland hdwds. | 74,900 | 163,400 | 104,000 | 123,000 | 121,400 | 586,700 |
| Scrub oak | 347,500 | 800,100 | 493,600 | 127,900 | 125,600 | 1,894,700 |
| Palm | 54,200 | 52,600 | 10,200 | 11,500 | 12,600 | 141,100 |
| All types | 6,880,600 | 5,922,000 | 2,918,600 | 2,107,200 | 3,622,700 | 21,451,100 |
| Percent | 32.1 | 27.6 | 13.6 | 9.8 | 16.9 | 100.0 |

^{1/} Includes trees 1.0 inch d.b.h. and larger.^{2/} Includes sound trees, cull trees, and palms.

Table 22.--Net annual growth^{1/} of saw timber by stand-size class, species, group, and survey unit, 1948

| STATE | | | | | |
|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Stand-size class | Softwoods | | Gum, maple, bay, and magnolia | Other hardwoods | All species |
| | Yellow pine | Other | | | |
| | <u>Thousand</u> <u>bd. ft.</u> | <u>Thousand</u> <u>bd. ft.</u> | <u>Thousand</u> <u>bd. ft.</u> | <u>Thousand</u> <u>bd. ft.</u> | <u>Thousand</u> <u>bd. ft.</u> |
| Saw-timber stands | 492,600 | 75,500 | 103,700 | 44,600 | 716,400 |
| Pole-timber stands | 135,700 | 14,100 | 15,200 | 17,400 | 182,400 |
| Other stands | 208,500 | 8,500 | 5,100 | 4,400 | 226,500 |
| All stands | 836,800 | 98,100 | 124,000 | 66,400 | 1,125,300 |

| NORTHEAST | | | | | |
|--------------------|---------|--------|--------|--------|---------|
| Saw-timber stands | 311,200 | 34,400 | 40,300 | 17,500 | 403,400 |
| Pole-timber stands | 84,000 | 9,100 | 6,100 | 5,100 | 104,300 |
| Other stands | 76,300 | 3,400 | 300 | 1,600 | 81,600 |
| All stands | 471,500 | 46,900 | 46,700 | 24,200 | 589,300 |

| NORTHWEST | | | | | |
|--------------------|---------|--------|--------|--------|---------|
| Saw-timber stands | 139,900 | 8,400 | 45,100 | 19,900 | 213,300 |
| Pole-timber stands | 35,500 | 2,300 | 6,000 | 9,500 | 53,300 |
| Other stands | 84,400 | 1,000 | 3,400 | 2,600 | 91,400 |
| All stands | 259,800 | 11,700 | 54,500 | 32,000 | 358,000 |

| CENTRAL AND SOUTH | | | | | |
|--------------------|---------|--------|--------|--------|---------|
| Saw-timber stands | 41,500 | 32,700 | 18,300 | 7,200 | 99,700 |
| Pole-timber stands | 16,200 | 2,700 | 3,100 | 2,800 | 24,800 |
| Other stands | 47,800 | 4,100 | 1,400 | 200 | 53,500 |
| All stands | 105,500 | 39,500 | 22,800 | 10,200 | 178,000 |

^{1/} Log scale, International 1/4-inch rule, on sound saw-timber growing stock.

Table 23.--Net annual growth^{1/} of primary growing stock by stand-size class, species group, and survey unit, 1948

| STATE | | | | | |
|--------------------|-----------------------|-----------------------|-------------------------------|-----------------------|-----------------------|
| Stand-size class | Softwoods | | Gum, maple, bay, and magnolia | Other hardwoods | All species |
| | Yellow pine | Other | | | |
| | <u>Thousand cords</u> | <u>Thousand cords</u> | <u>Thousand cords</u> | <u>Thousand cords</u> | <u>Thousand cords</u> |
| Saw-timber stands | 1,312 | 268 | 407 | 182 | 2,169 |
| Pole-timber stands | 1,187 | 122 | 216 | 164 | 1,689 |
| Other stands | 881 | 7 | 68 | 45 | 1,001 |
| All stands | 3,380 | 397 | 691 | 391 | 4,859 |
| NORTHEAST | | | | | |
| Saw-timber stands | 830 | 114 | 187 | 79 | 1,210 |
| Pole-timber stands | 563 | 53 | 92 | 58 | 766 |
| Other stands | 343 | 3 | 24 | 13 | 383 |
| All stands | 1,736 | 170 | 303 | 150 | 2,359 |
| NORTHWEST | | | | | |
| Saw-timber stands | 370 | 20 | 163 | 79 | 632 |
| Pole-timber stands | 477 | 5 | 82 | 77 | 641 |
| Other stands | 341 | 1 | 21 | 23 | 386 |
| All stands | 1,188 | 26 | 266 | 179 | 1,659 |
| CENTRAL AND SOUTH | | | | | |
| Saw-timber stands | 112 | 134 | 57 | 24 | 327 |
| Pole-timber stands | 147 | 64 | 42 | 29 | 282 |
| Other stands | 197 | 3 | 23 | 9 | 232 |
| All stands | 456 | 201 | 122 | 62 | 841 |

^{1/} Sound wood and bark.

Table 24.--Average growth^{1/} of saw timber per acre by forest type, stand-size class, and survey unit, 1948

(in board feet)

| Forest type | Saw-timber stands | | | | Pole-timber stands | | | |
|-------------------|-------------------|------------|------------|-------------------|--------------------|------------|------------|-------------------|
| | State | North-east | North-west | Central and South | State | North-east | North-west | Central and South |
| Longleaf pine | 298 | 327 | 287 | 231 | 83 | 108 | 75 | 51 |
| Slash pine | 317 | 337 | 304 | 238 | 62 | 65 | 60 | 59 |
| Loblolly pine | 388 | 429 | 361 | 231 | 96 | 34 | 142 | 119 |
| Pond pine | 157 | 158 | 188 | 98 | 30 | 33 | 18 | 41 |
| Sand pine | 68 | 68 | -- | -- | 23 | 18 | 38 | 6 |
| Cypress | 241 | 290 | 173 | 180 | 42 | 58 | 67 | 31 |
| Lowland hardwoods | 195 | 181 | 222 | 181 | 67 | 68 | 79 | 49 |
| Upland hardwoods | 41 | 27 | 53 | -- | 58 | 35 | 90 | -- |
| Scrub oak | -- | -- | -- | -- | -- | -- | -- | -- |
| All types | 265 | 287 | 267 | 201 | 68 | 76 | 76 | 47 |

| | Other stands | | | | All stands | | | |
|-------------------|--------------|------------|------------|-------------------|------------|------------|------------|-------------------|
| | State | North-east | North-west | Central and South | State | North-east | North-west | Central and South |
| Longleaf pine | 25 | 24 | 39 | 17 | 56 | 81 | 64 | 28 |
| Slash pine | 19 | 30 | 26 | 13 | 72 | 137 | 74 | 27 |
| Loblolly pine | 28 | 13 | 19 | 124 | 140 | 152 | 131 | 138 |
| Pond pine | 21 | 22 | 31 | 9 | 42 | 51 | 40 | 15 |
| Sand pine | 1 | -- | -- | 2 | 9 | 9 | 16 | 2 |
| Cypress | 18 | 20 | 13 | 16 | 117 | 160 | 75 | 79 |
| Lowland hardwoods | 24 | 24 | 41 | 12 | 93 | 98 | 121 | 56 |
| Upland hardwoods | 10 | 12 | 28 | 1 | 18 | 17 | 49 | 1 |
| Scrub oak | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 4 |
| All types | 19 | 20 | 29 | 13 | 65 | 94 | 71 | 32 |

^{1/} Applies to timber stands in which no cutting occurred during the year.

Table 25.--Average growth^{1/} of primary growing stock per acre by forest type, stand-size class, and survey unit, 1948

(in cords)

| Forest type | Saw-timber stands | | | | Pole-timber stands | | | |
|-------------------|-------------------|------------|------------|-------------------|--------------------|------------|------------|-------------------|
| | State | North-east | North-west | Central and South | State | North-east | North-west | Central and South |
| Longleaf pine | 0.8 | 0.8 | 0.8 | 0.6 | 0.6 | 0.6 | 0.7 | 0.5 |
| Slash pine | 0.9 | 1.0 | 1.0 | 0.6 | 0.6 | 0.6 | 0.7 | 0.5 |
| Loblolly pine | 1.0 | 1.1 | 0.9 | 0.8 | 0.9 | 0.4 | 1.2 | 0.4 |
| Pond pine | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.5 |
| Sand pine | 0.1 | 0.1 | -- | -- | 0.3 | 0.4 | 0.1 | 0.6 |
| Cypress | 0.7 | 0.7 | 0.4 | 0.7 | 0.5 | 0.5 | 0.4 | 0.5 |
| Lowland hardwoods | 0.7 | 0.6 | 0.8 | 0.6 | 0.6 | 0.6 | 0.7 | 0.5 |
| Upland hardwoods | 0.3 | 0.3 | 0.3 | -- | 0.4 | 0.2 | 0.7 | -- |
| Scrub oak | -- | -- | -- | -- | -- | -- | -- | -- |
| All types | 0.8 | 0.8 | 0.8 | 0.6 | 0.6 | 0.5 | 0.7 | 0.5 |

| | Other stands | | | | All stands | | | |
|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | | | | | | | |
| Longleaf pine | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 0.3 | 0.3 | 0.1 |
| Slash pine | 0.1 | 0.1 | 0.2 | 0.1 | 0.3 | 0.5 | 0.4 | 0.1 |
| Loblolly pine | 0.2 | 0.1 | 0.2 | 0.4 | 0.5 | 0.5 | 0.6 | 0.4 |
| Pond pine | 0.1 | 0.1 | 0.1 | (<u>2/</u>) | 0.1 | 0.2 | 0.1 | 0.1 |
| Sand pine | (<u>2/</u>) | (<u>2/</u>) | (<u>2/</u>) | (<u>2/</u>) | 0.1 | 0.1 | 0.1 | (<u>2/</u>) |
| Cypress | 0.1 | 0.1 | 0.1 | 0.1 | 0.5 | 0.5 | 0.3 | 0.5 |
| Lowland hardwoods | 0.2 | 0.2 | 0.2 | 0.1 | 0.4 | 0.5 | 0.6 | 0.3 |
| Upland hardwoods | (<u>2/</u>) | (<u>2/</u>) | 0.2 | (<u>2/</u>) | 0.1 | 0.1 | 0.3 | (<u>2/</u>) |
| Scrub oak | (<u>2/</u>) | (<u>2/</u>) | (<u>2/</u>) | (<u>2/</u>) | (<u>2/</u>) | (<u>2/</u>) | (<u>2/</u>) | (<u>2/</u>) |
| All types | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.4 | 0.3 | 0.2 |

^{1/} Sound wood and bark. Applies to stands in which no cutting occurred during the year.

^{2/} Less than 0.05 cords per acre.

Table 26.--Commodity drain^{1/} from saw timber by species group and survey unit,

1948

STATE

| Commodity | Softwoods | | Gum, maple, bay, and magnolia | Other hardwoods | All species | |
|-----------------------------|-----------------------------|-----------------------------|-------------------------------------|-----------------------------|-----------------------------|----------------|
| | Yellow pine | Other | | | | |
| | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Percent</u> |
| Sawlogs ^{2/} | 398,231 | 83,201 | 23,353 | 10,003 | 514,788 | 54.9 |
| Veneer bolts | 14,417 | 1,105 | 67,576 | 2,140 | 85,238 | 9.1 |
| Cooperage bolts | 10,509 | -- | 51 | -- | 10,560 | 1.1 |
| Dimension | 3,934 | 176 | 631 | 69 | 4,810 | 0.5 |
| Pulpwood bolts | 219,627 | -- | 215 | -- | 219,842 | 23.4 |
| Fuel wood | 10,398 | -- | 255 | 2,321 | 12,974 | 1.4 |
| Piling | 2,884 | 384 | -- | 385 | 3,653 | 0.4 |
| Poles | 25,956 | 18 | -- | -- | 25,974 | 2.8 |
| Posts | -- | -- | -- | -- | -- | -- |
| Hewn ties | 44,044 | 6,920 | 1,018 | 3,883 | 55,865 | 6.0 |
| Miscellaneous ^{3/} | 297 | 1,814 | 1,249 | 362 | 3,722 | 0.4 |
| All commodities | 730,297 | 93,618 | 94,348 | 19,163 | 937,426 | 100.0 |

NORTHEAST

| | | | | | | |
|-----------------------------|---------|--------|--------|-------|---------|-------|
| Sawlogs ^{2/} | 193,969 | 14,061 | 6,813 | 2,524 | 217,367 | 47.3 |
| Veneer bolts | 9,039 | 659 | 23,804 | 1,881 | 35,383 | 7.7 |
| Cooperage bolts | 2,089 | -- | -- | -- | 2,089 | 0.4 |
| Dimension | 1,581 | -- | 631 | 30 | 2,242 | 0.5 |
| Pulpwood bolts | 130,107 | -- | 181 | -- | 130,288 | 28.3 |
| Fuel wood | 3,703 | -- | -- | 688 | 4,391 | 1.0 |
| Piling | 2,216 | 92 | -- | 4 | 2,312 | 0.5 |
| Poles | 18,900 | 11 | -- | -- | 18,911 | 4.1 |
| Posts | -- | -- | -- | -- | -- | -- |
| Hewn ties | 35,881 | 6,199 | 21 | 3,223 | 45,324 | 9.9 |
| Miscellaneous ^{3/} | 46 | 1,358 | -- | 79 | 1,483 | 0.3 |
| All commodities | 397,531 | 22,380 | 31,450 | 8,429 | 459,790 | 100.0 |

^{1/} Log scale, International 1/4-inch rule.^{2/} For lumber, timbers, and sawn ties.

Table 26.--Commodity drain^{1/} from saw timber by species group and survey unit,
1948 (cont'd.)

NORTHWEST

| Commodity | Softwoods | | Gum, maple, bay, and magnolia | Other hardwoods | All species | |
|-----------------------------|-----------------------------|-----------------------------|-------------------------------------|-----------------------------|-----------------------------|----------------|
| | Yellow pine | Other | | | | |
| | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Percent</u> |
| Sawlogs ^{2/} | 84,124 | 11,921 | 15,131 | 6,778 | 117,954 | 52.4 |
| Veneer bolts | 108 | 68 | 22,238 | 131 | 22,545 | 10.0 |
| Cooperage bolts | 8,420 | -- | 51 | -- | 8,471 | 3.8 |
| Dimension | -- | -- | -- | 39 | 39 | (<u>4/</u>) |
| Pulpwood bolts | 55,609 | -- | 32 | -- | 55,641 | 24.7 |
| Fuel wood | 5,759 | -- | 229 | 1,633 | 7,621 | 3.4 |
| Piling | -- | 4 | -- | -- | 4 | (<u>4/</u>) |
| Poles | 6,681 | -- | -- | -- | 6,681 | 3.0 |
| Posts | -- | -- | -- | -- | -- | -- |
| Hewn ties | 2,770 | 255 | 750 | 633 | 4,408 | 1.9 |
| Miscellaneous ^{3/} | 228 | 126 | 1,249 | 214 | 1,817 | 0.8 |
| All commodities | 163,699 | 12,374 | 39,680 | 9,428 | 225,181 | 100.0 |

CENTRAL AND SOUTH

| Sawlogs ^{2/} | 120,138 | 57,219 | 1,409 | 701 | 179,467 | 71.1 |
|-----------------------------|---------|--------|--------|-------|---------|-------|
| Veneer bolts | 5,270 | 378 | 21,534 | 128 | 27,310 | 10.8 |
| Cooperage bolts | -- | -- | -- | -- | -- | -- |
| Dimension | 2,353 | 176 | -- | -- | 2,529 | 1.0 |
| Pulpwood bolts | 33,911 | -- | 2 | -- | 33,913 | 13.4 |
| Fuel wood | 936 | -- | 26 | -- | 962 | 0.4 |
| Piling | 668 | 288 | -- | 381 | 1,337 | 0.5 |
| Poles | 375 | 7 | -- | -- | 382 | 0.2 |
| Posts | -- | -- | -- | -- | -- | -- |
| Hewn ties | 5,393 | 466 | 247 | 27 | 6,133 | 2.4 |
| Miscellaneous ^{3/} | 23 | 330 | -- | 69 | 422 | 0.2 |
| All commodities | 169,067 | 58,864 | 23,218 | 1,306 | 252,455 | 100.0 |

^{3/} Products such as handles, shuttle blocks, excelsior, shingles, etc.

^{4/} Less than 0.05 percent.

Table 27.--Commodity drain^{1/} from all timber by species group and survey unit,
1948

STATE

Primary Growing Stock

| Commodity | Softwoods | | Gum, maple, bay, and magnolia | Other hardwoods | All species | |
|-----------------------------|-------------------|-------------------|-------------------------------------|--------------------|-------------------|---------|
| | Yellow pine | Other | | | | |
| | Standard cords | Standard cords | Standard cords | Standard cords | Standard cords | Percent |
| Sawlogs ^{2/} | 766,400 | 190,200 | 49,900 | 21,400 | 1,027,900 | 37.9 |
| Veneer bolts | 36,600 | 2,800 | 187,100 | 5,900 | 232,400 | 8.6 |
| Cooperage bolts | 22,300 | -- | 100 | -- | 22,400 | 0.8 |
| Dimension | 9,400 | 400 | 1,500 | 200 | 11,500 | 0.4 |
| Pulpwood bolts | 1,110,400 | -- | 1,100 | -- | 1,111,500 | 41.0 |
| Fuel wood | 38,000 | -- | 1,200 | 11,500 | 50,700 | 1.9 |
| Piling | 8,700 | 1,100 | -- | 1,300 | 11,100 | 0.4 |
| Poles | 76,500 | 100 | -- | -- | 76,600 | 2.8 |
| Posts | 1,200 | 400 | 300 | 400 | 2,300 | 0.1 |
| Hewn ties | 122,700 | 19,300 | 2,800 | 10,800 | 155,600 | 5.7 |
| Miscellaneous ^{3/} | 1,300 | 4,300 | 3,100 | 1,100 | 9,800 | 0.4 |
| All commodities | 2,193,500 | 218,600 | 247,100 | 52,600 | 2,711,800 | 100.0 |

Secondary Growing Stock

| | | | | | | |
|-----------------|-------|--------|--------|--------|---------|----|
| All commodities | 6,400 | 16,300 | 15,400 | 90,400 | 128,500 | -- |
|-----------------|-------|--------|--------|--------|---------|----|

NORTHEAST

Primary Growing Stock

| | | | | | | |
|-----------------------------|-----------|--------|--------|--------|-----------|-------|
| Sawlogs ^{2/} | 373,300 | 32,100 | 14,600 | 5,400 | 425,400 | 30.4 |
| Veneer bolts | 23,000 | 1,600 | 65,900 | 5,200 | 95,700 | 6.8 |
| Cooperage bolts | 4,400 | -- | -- | -- | 4,400 | 0.3 |
| Dimension | 3,800 | -- | 1,500 | 100 | 5,400 | 0.4 |
| Pulpwood bolts | 657,800 | -- | 900 | -- | 658,700 | 47.0 |
| Fuel wood | 13,500 | -- | -- | 3,400 | 16,900 | 1.2 |
| Piling | 6,700 | 300 | -- | (4/) | 7,000 | 0.5 |
| Poles | 55,700 | 100 | -- | -- | 55,800 | 4.0 |
| Posts | 700 | 200 | (4/) | 300 | 1,200 | 0.1 |
| Hewn ties | 100,000 | 17,300 | 100 | 8,900 | 126,300 | 9.0 |
| Miscellaneous ^{3/} | 500 | 3,300 | -- | 200 | 4,000 | 0.3 |
| All commodities | 1,239,400 | 54,900 | 83,000 | 23,500 | 1,400,800 | 100.0 |

Secondary Growing Stock

| | | | | | | |
|-----------------|-------|-------|-------|--------|--------|----|
| All commodities | 3,000 | 7,600 | 7,100 | 41,900 | 59,600 | -- |
|-----------------|-------|-------|-------|--------|--------|----|

^{1/} Sound wood and bark.

^{2/} For lumber, timbers, and sawn ties.

^{3/} Products such as handles, shuttle blocks, excelsior, shingles, etc.

Table 27.--Commodity drain^{1/} from all timber by species group and survey unit,
1948 (cont'd.)

NORTHWEST

| Primary Growing Stock | | | | | | |
|-----------------------------|---------------------------|---------------------------|-------------------------------------|---------------------------|---------------------------|----------------|
| Commodity | Softwoods | | Gum, maple, bay, and magnolia | Other hardwoods | All species | |
| | Yellow pine | Other | | | | |
| | <u>Standard cords</u> | <u>Standard cords</u> | <u>Standard cords</u> | <u>Standard cords</u> | <u>Standard cords</u> | <u>Percent</u> |
| Sawlogs ^{2/} | 161,900 | 27,300 | 32,300 | 14,500 | 236,000 | 35.5 |
| Veneer bolts | 200 | 200 | 61,600 | 400 | 62,400 | 9.4 |
| Cooperage bolts | 17,900 | -- | 100 | -- | 18,000 | 2.7 |
| Dimension | -- | -- | -- | 100 | 100 | (5/) |
| Pulpwood bolts | 281,100 | -- | 200 | -- | 281,300 | 42.3 |
| Fuel wood | 21,100 | -- | 1,100 | 8,100 | 30,300 | 4.5 |
| Piling | -- | (4/) | -- | -- | (4/) | (5/) |
| Poles | 19,700 | -- | -- | -- | 19,700 | 3.0 |
| Posts | 200 | (4/) | 300 | 100 | 600 | 0.1 |
| Hewn ties | 7,700 | 700 | 2,000 | 1,800 | 12,200 | 1.8 |
| Miscellaneous ^{3/} | 800 | 200 | 3,100 | 700 | 4,800 | 0.7 |
| All commodities | 510,600 | 28,400 | 100,700 | 25,700 | 665,400 | 100.0 |

Secondary Growing Stock

| | | | | | | |
|-----------------|-------|-------|-------|--------|--------|----|
| All commodities | 1,500 | 3,900 | 3,700 | 21,700 | 30,800 | -- |
|-----------------|-------|-------|-------|--------|--------|----|

CENTRAL AND SOUTH

| Primary Growing Stock | | | | | | |
|-----------------------------|---------|---------|--------|-------|---------|-------|
| Sawlogs ^{2/} | 231,200 | 130,800 | 3,000 | 1,500 | 366,500 | 56.8 |
| Veneer bolts | 13,400 | 1,000 | 59,600 | 300 | 74,300 | 11.5 |
| Cooperage bolts | -- | -- | -- | -- | -- | -- |
| Dimension | 5,600 | 400 | -- | -- | 6,000 | 0.9 |
| Pulpwood bolts | 171,500 | -- | (4/) | -- | 171,500 | 26.6 |
| Fuel wood | 3,400 | -- | 100 | -- | 3,500 | 0.5 |
| Piling | 2,000 | 800 | -- | 1,300 | 4,100 | 0.6 |
| Poles | 1,100 | (4/) | -- | -- | 1,100 | 0.2 |
| Posts | 300 | 200 | -- | (4/) | 500 | 0.1 |
| Hewn ties | 15,000 | 1,300 | 700 | 100 | 17,100 | 2.6 |
| Miscellaneous ^{3/} | (4/) | 800 | -- | 200 | 1,000 | 0.2 |
| All commodities | 443,500 | 135,300 | 63,400 | 3,400 | 645,600 | 100.0 |

Secondary Growing Stock

| | | | | | | |
|-----------------|-------|-------|-------|--------|--------|----|
| All commodities | 1,900 | 4,800 | 4,600 | 26,800 | 38,100 | -- |
|-----------------|-------|-------|-------|--------|--------|----|

^{4/} Less than 50 cords.

^{5/} Less than 0.05 percent.

Table 28.--Net change^{1/} in saw-timber growing stock by species group and survey unit, 1948

| Item | STATE | | | | |
|-----------------------------|-----------------------------|-----------------------------|-------------------------------------|-----------------------------|-----------------------------|
| | Softwoods | | Gum, maple, bay, and magnolia | Other hardwoods | Total |
| | Yellow pine | Other | | | |
| | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> |
| Growing stock, Jan. 1, 1948 | 12,584,000 | 3,181,700 | 3,052,000 | 1,588,400 | 20,406,100 |
| Net growth | 836,800 | 98,100 | 124,000 | 66,400 | 1,125,300 |
| Commodity drain | 730,300 | 93,600 | 94,300 | 19,200 | 937,400 |
| Net change | +106,500 | +4,500 | +29,700 | +47,200 | +187,900 |
| Growing stock, Jan. 1, 1949 | 12,690,500 | 3,186,200 | 3,081,700 | 1,635,600 | 20,594,000 |
| Percent change | +0.8 | +0.1 | +1.0 | +3.0 | +0.9 |

| NORTHEAST | | | | | |
|-----------------------------|-----------|-----------|-----------|---------|------------|
| Growing stock, Jan. 1, 1948 | 6,565,200 | 1,630,600 | 1,191,000 | 547,500 | 9,934,300 |
| Net growth | 471,500 | 46,900 | 46,700 | 24,200 | 589,300 |
| Commodity drain | 397,600 | 22,300 | 31,400 | 8,500 | 459,800 |
| Net change | +73,900 | +24,600 | +15,300 | +15,700 | +129,500 |
| Growing stock, Jan. 1, 1949 | 6,639,100 | 1,655,200 | 1,206,300 | 563,200 | 10,063,800 |
| Percent change | +1.1 | +1.5 | +1.3 | +2.9 | +1.3 |

Table 28.--Net change^{1/} in saw-timber growing stock by species group and survey unit, 1948 (cont'd.)

NORTHWEST

| Item | Softwoods | | Gum, maple, bay, and magnolia | Other hardwoods | Total |
|-----------------------------|-----------------------------|-----------------------------|-------------------------------------|-----------------------------|-----------------------------|
| | Yellow pine | Other | | | |
| | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> |
| Growing stock, Jan. 1, 1948 | 3,726,800 | 369,800 | 1,330,300 | 778,200 | 6,205,100 |
| Net growth | 259,800 | 11,700 | 54,500 | 32,000 | 358,000 |
| Commodity drain | 163,700 | 12,400 | 39,700 | 9,400 | 225,200 |
| Net change | +96,100 | -700 | +14,800 | +22,600 | +132,800 |
| Growing stock, Jan. 1, 1949 | 3,822,900 | 369,100 | 1,345,100 | 800,800 | 6,337,900 |
| Percent change | +2.6 | -0.2 | +1.1 | +2.9 | +2.1 |

CENTRAL AND SOUTH

| | | | | | |
|-----------------------------|-----------|-----------|---------|---------|-----------|
| Growing stock, Jan. 1, 1948 | 2,292,000 | 1,181,300 | 530,700 | 262,700 | 4,266,700 |
| Net growth | 105,500 | 39,500 | 22,800 | 10,200 | 178,000 |
| Commodity drain | 169,000 | 58,900 | 23,200 | 1,300 | 252,400 |
| Net change | -63,500 | -19,400 | -400 | +8,900 | -74,400 |
| Growing stock, Jan. 1, 1949 | 2,228,500 | 1,161,900 | 530,300 | 271,600 | 4,192,300 |
| Percent change | -2.8 | -1.6 | -0.1 | +3.4 | -1.7 |

^{1/} Log scale, International 1/4-inch rule on sound saw-timber growing stock.

Table 29.--Net change in primary growing stock by species group and survey unit,

1948

STATE

| Item | Softwoods | | Gum, maple, bay, and magnolia | Other hardwoods | Total |
|---|---------------------------|---------------------------|-------------------------------------|---------------------------|---------------------------|
| | Yellow pine | Other | | | |
| | <u>Thousand cords</u> | <u>Thousand cords</u> | <u>Thousand cords</u> | <u>Thousand cords</u> | <u>Thousand cords</u> |
| Growing stock, Jan. 1, 1948 | 57,481 | 15,658 | 18,033 | 8,945 | 100,117 |
| Net growth: | | | | | |
| On trees 5.0" and larger, Jan. 1, 1948 | 2,952 | 293 | 544 | 289 | 4,078 |
| Trees recruiting to 5.0" in 1948 | 428 | 104 | 147 | 102 | 781 |
| Total | 3,380 | 397 | 691 | 391 | 4,859 |
| Commodity drain | 2,193 | 219 | 247 | 53 | 2,712 |
| Net change | +1,187 | +178 | +444 | +338 | +2,147 |
| Growing stock, Jan. 1, 1949 | 58,668 | 15,836 | 18,477 | 9,283 | 102,264 |
| Percent change | +2.1 | +1.1 | +2.5 | +3.8 | +2.1 |

NORTHEAST

| | | | | | |
|---|--------|-------|-------|-------|--------|
| Growing stock, Jan. 1, 1948 | 28,459 | 7,345 | 7,341 | 3,540 | 46,685 |
| Net growth: | | | | | |
| On trees 5.0" and larger, Jan. 1, 1948 | 1,547 | 127 | 236 | 114 | 2,024 |
| Trees recruiting to 5.0" in 1948 | 189 | 43 | 67 | 36 | 335 |
| Total | 1,736 | 170 | 303 | 150 | 2,359 |
| Commodity drain | 1,239 | 55 | 83 | 24 | 1,401 |
| Net change | +497 | +115 | +220 | +126 | +958 |
| Growing stock, Jan. 1, 1949 | 28,956 | 7,460 | 7,561 | 3,666 | 47,643 |
| Percent change | +1.7 | +1.6 | +3.0 | +3.6 | +2.1 |

Table 29.--Net change in primary growing stock by species group and survey unit,
1948 (cont'd.)

| NORTHWEST | | | | | |
|--|---------------------------|---------------------------|-------------------------------------|---------------------------|---------------------------|
| Item | Softwoods | | Gum, maple, bay, and magnolia | Other hardwoods | Total |
| | Yellow pine | Other | | | |
| | <u>Thousand cords</u> | <u>Thousand cords</u> | <u>Thousand cords</u> | <u>Thousand cords</u> | <u>Thousand cords</u> |
| Growing stock, Jan. 1, 1948 | 18,113 | 1,365 | 7,678 | 3,881 | 31,037 |
| Net growth: | | | | | |
| On trees 5.0" and larger Jan. 1, 1948 | 1,011 | 20 | 213 | 130 | 1,374 |
| Trees recruiting to 5.0" in 1948 | 177 | 6 | 53 | 49 | 285 |
| Total | 1,188 | 26 | 266 | 179 | 1,659 |
| Commodity drain | 510 | 28 | 101 | 26 | 665 |
| Net change | +678 | -2 | +165 | +153 | +994 |
| Growing stock, Jan. 1, 1949 | 18,791 | 1,363 | 7,843 | 4,034 | 32,031 |
| Percent change | +3.7 | -0.1 | +2.1 | +3.9 | +3.2 |

| CENTRAL AND SOUTH | | | | | |
|--|--------|-------|-------|-------|--------|
| Growing stock, Jan. 1, 1948 | 10,909 | 6,948 | 3,014 | 1,524 | 22,395 |
| Net growth: | | | | | |
| On trees 5.0" and larger Jan. 1, 1948 | 394 | 146 | 95 | 45 | 680 |
| Trees recruiting to 5.0" in 1948 | 62 | 55 | 27 | 17 | 161 |
| Total | 456 | 201 | 122 | 62 | 841 |
| Commodity drain | 444 | 136 | 63 | 3 | 646 |
| Net change | +12 | +65 | +59 | +59 | +195 |
| Growing stock, Jan. 1, 1949 | 10,921 | 7,013 | 3,073 | 1,583 | 22,590 |
| Percent change | +0.1 | +0.9 | +2.0 | +3.9 | +0.9 |

Table 30.--County area by broad use class, 1949

| County | Total areal/ Acres | Non-forest area | | Forest land | | |
|--------------|------------------------------|-----------------|-----------|----------------------------------|------------|---------|
| | | Land | Water | Non- commercial ^{2/} | Commercial | |
| | | Acres | Acres | Acres | Acres | Percent |
| Alachua | 615,000 | 207,000 | 37,700 | 300 | 370,000 | 64.1 |
| Baker | 376,300 | 18,900 | 1,100 | -- | 356,300 | 95.0 |
| Bay | 551,000 | 50,600 | 60,700 | 11,200 | 428,500 | 87.4 |
| Bradford | 195,200 | 43,400 | 7,500 | -- | 144,300 | 76.9 |
| Brevard | 839,000 | 373,500 | 190,500 | 37,100 | 237,900 | 36.7 |
| Broward | 780,800 | 666,800 | 2,600 | 63,200 | 48,200 | 6.2 |
| Calhoun | 362,900 | 32,700 | 1,700 | -- | 328,500 | 90.9 |
| Charlotte | 532,500 | 86,800 | 88,600 | 47,500 | 309,600 | 69.7 |
| Citrus | 423,100 | 59,200 | 50,000 | 3,700 | 310,200 | 83.1 |
| Clay | 412,100 | 32,700 | 29,100 | 1,000 | 349,300 | 91.2 |
| Collier | 1,356,100 | 302,000 | 92,000 | 300,500 | 661,600 | 52.3 |
| Columbia | 505,000 | 107,600 | 4,100 | 1,200 | 392,100 | 78.3 |
| Dade | 1,349,800 | 1,113,900 | 19,700 | 141,900 | 74,300 | 5.6 |
| De Soto | 416,600 | 242,000 | 3,700 | 17,400 | 153,500 | 37.2 |
| Dixie | 453,800 | 49,800 | 9,100 | -- | 394,900 | 88.8 |
| Duval | 537,600 | 133,800 | 56,200 | 1,400 | 346,200 | 71.9 |
| Escambia | 491,500 | 101,000 | 41,600 | 2,900 | 346,000 | 76.9 |
| Flagler | 322,600 | 20,700 | 17,000 | 1,700 | 283,200 | 92.7 |
| Franklin | 361,600 | 29,800 | 16,500 | 21,800 | 293,500 | 85.0 |
| Gadsden | 334,700 | 100,800 | 6,000 | 3,200 | 224,700 | 68.4 |
| Gilchrist | 222,700 | 69,000 | 4,100 | -- | 149,600 | 68.4 |
| Glades | 574,700 | 360,700 | 4,400 | 65,900 | 143,700 | 25.2 |
| Gulf | 369,900 | 31,600 | 7,500 | 7,500 | 323,300 | 89.2 |
| Hamilton | 329,600 | 59,100 | 3,500 | 1,300 | 265,700 | 81.5 |
| Hardee | 403,200 | 113,000 | 6,800 | 2,800 | 280,600 | 70.8 |
| Hendry | 761,000 | 465,500 | 2,600 | 71,800 | 221,100 | 29.2 |
| Hernando | 325,100 | 45,000 | 16,200 | 1,700 | 262,200 | 84.9 |
| Highlands | 716,200 | 331,800 | 56,800 | 24,800 | 302,800 | 45.9 |
| Hillsborough | 679,700 | 233,100 | 22,300 | 8,800 | 415,500 | 63.2 |
| Holmes | 309,800 | 83,900 | 2,000 | -- | 223,900 | 72.7 |
| Indian River | 350,700 | 211,500 | 20,100 | 20,800 | 98,300 | 29.7 |
| Jackson | 606,700 | 261,800 | 8,300 | 900 | 335,700 | 56.1 |
| Jefferson | 389,800 | 96,500 | 4,300 | -- | 289,000 | 75.0 |
| Lafayette | 352,600 | 58,100 | 4,300 | -- | 290,200 | 83.3 |
| Lake | 744,300 | 177,900 | 143,200 | 29,500 | 393,700 | 65.5 |
| Lee | 643,200 | 81,200 | 99,300 | 86,700 | 376,000 | 69.1 |
| Leon | 445,500 | 94,700 | 16,300 | 100 | 334,400 | 77.9 |
| Levy | 727,700 | 155,400 | 37,100 | 800 | 534,400 | 77.4 |
| Liberty | 540,800 | 6,500 | 3,100 | 16,800 | 514,400 | 95.7 |
| Madison | 453,100 | 143,600 | 6,000 | (3/) | 303,500 | 67.9 |
| Manatee | 502,400 | 153,300 | 40,600 | 3,100 | 305,400 | 66.1 |
| Marion | 1,057,300 | 223,400 | 41,700 | -- | 792,200 | 78.0 |
| Martin | 372,400 | 103,900 | 37,700 | 22,900 | 207,900 | 62.1 |
| Monroe | 907,500 | 388,400 | 271,400 | 243,200 | 4,500 | 0.7 |
| Nassau | 429,400 | 49,400 | 15,200 | 1,500 | 363,300 | 87.7 |
| Okaloosa | 634,900 | 77,800 | 40,500 | 6,600 | 510,000 | 85.8 |
| Okeechobee | 499,200 | 325,300 | 61,000 | 8,600 | 104,300 | 23.8 |
| Orange | 641,900 | 115,800 | 63,900 | 12,200 | 450,000 | 77.9 |
| Osceola | 938,900 | 358,900 | 88,600 | 7,100 | 484,300 | 57.0 |
| Palm Beach | 1,649,900 | 970,900 | 455,500 | 96,200 | 127,300 | 10.7 |
| Pasco | 494,100 | 98,900 | 36,100 | 9,100 | 350,000 | 76.4 |
| Pinellas | 197,800 | 81,400 | 37,900 | 3,400 | 75,100 | 47.0 |
| Polk | 1,310,700 | 403,700 | 113,200 | 22,800 | 771,000 | 64.4 |
| Putnam | 562,600 | 50,000 | 65,300 | -- | 447,300 | 89.9 |
| St. Johns | 422,400 | 53,400 | 43,800 | 1,400 | 323,800 | 85.5 |
| St. Lucie | 400,600 | 184,000 | 54,400 | -- | 162,200 | 46.9 |
| Santa Rosa | 737,300 | 95,400 | 72,600 | 6,400 | 562,900 | 84.7 |
| Sarasota | 396,800 | 143,000 | 37,100 | 8,100 | 208,600 | 58.0 |
| Seminole | 225,300 | 65,300 | 26,100 | -- | 133,900 | 67.2 |
| Sumter | 367,400 | 83,200 | 25,500 | 11,000 | 247,700 | 72.4 |
| Suwannee | 439,700 | 180,000 | 7,200 | 700 | 251,800 | 58.2 |
| Taylor | 673,300 | 48,200 | 15,700 | 18,300 | 591,100 | 89.9 |
| Union | 156,800 | 27,000 | 2,100 | -- | 127,700 | 82.5 |
| Volusia | 772,500 | 101,400 | 83,900 | 62,400 | 524,800 | 76.2 |
| Wakulla | 406,400 | 42,400 | 14,900 | 50,200 | 298,900 | 76.3 |
| Walton | 726,400 | 82,800 | 31,900 | 4,500 | 607,200 | 87.4 |
| Washington | 391,000 | 71,500 | 12,400 | -- | 307,100 | 81.1 |
| Total | 37,478,400 | 11,431,600 | 2,999,800 | 1,595,900 | 21,451,100 | 62.2 |

^{1/} Gross area from Bureau of the Census.^{2/} Non-productive forest land plus forest land withdrawn from commercial use.^{3/} Less than 50 acres.

Table 31.--Ownership of commercial forest land by county, 1949

| County | Private | | Public | | | | | |
|--------------|------------|---------|-----------------|---------------|---------|--------------------|--------------|---------|
| | | | National forest | Other federal | State | County, city, town | Total public | |
| | Acres | Percent | Acres | Acres | Acres | Acres | Acres | Percent |
| Alachua | 362,600 | 98.0 | -- | 500 | 5,700 | 1,200 | 7,400 | 2.0 |
| Baker | 278,100 | 78.1 | 77,500 | 500 | 200 | -- | 78,200 | 21.9 |
| Bay | 398,800 | 93.1 | -- | 21,300 | 8,000 | 400 | 29,700 | 6.9 |
| Bradford | 133,000 | 92.2 | -- | 300 | 11,000 | -- | 11,300 | 7.8 |
| Brevard | 227,900 | 95.8 | -- | 1,200 | 5,300 | 3,500 | 10,000 | 4.2 |
| Broward | 32,400 | 67.2 | -- | 400 | 14,500 | 900 | 15,800 | 32.8 |
| Calhoun | 328,200 | 99.9 | -- | 100 | 100 | 100 | 300 | 0.1 |
| Charlotte | 260,800 | 84.2 | -- | 200 | 47,000 | 1,600 | 48,800 | 15.8 |
| Citrus | 267,500 | 86.2 | -- | 40,700 | 2,000 | -- | 42,700 | 13.8 |
| Clay | 282,500 | 80.9 | -- | 42,700 | 24,100 | (1/) | 66,800 | 19.1 |
| Collier | 651,700 | 98.5 | -- | 400 | 9,500 | -- | 9,900 | 1.5 |
| Columbia | 313,900 | 80.1 | 76,200 | 400 | 1,300 | 300 | 78,200 | 19.9 |
| Dade | 60,400 | 81.3 | -- | 200 | 13,200 | 500 | 13,900 | 18.7 |
| De Soto | 152,700 | 99.5 | -- | 100 | 500 | 200 | 800 | 0.5 |
| Dixie | 393,700 | 99.7 | -- | 400 | 700 | 100 | 1,200 | 0.3 |
| Duval | 330,900 | 95.6 | -- | 12,200 | 1,400 | 1,700 | 15,300 | 4.4 |
| Escambia | 345,000 | 99.7 | -- | 600 | -- | 400 | 1,000 | 0.3 |
| Flagler | 282,100 | 99.6 | -- | 300 | 500 | 300 | 1,100 | 0.4 |
| Franklin | 271,900 | 92.6 | 21,400 | -- | 200 | -- | 21,600 | 7.4 |
| Gadsden | 223,200 | 99.3 | -- | 100 | 1,300 | 100 | 1,500 | 0.7 |
| Gilchrist | 148,800 | 99.5 | -- | 500 | 300 | -- | 800 | 0.5 |
| Glades | 137,300 | 95.5 | -- | 6,100 | 300 | -- | 6,400 | 4.5 |
| Gulf | 321,100 | 99.3 | -- | 2,200 | (1/) | -- | 2,200 | 0.7 |
| Hamilton | 265,300 | 99.8 | -- | 400 | (1/) | (1/) | 400 | 0.2 |
| Hardee | 279,600 | 99.6 | -- | -- | 1,000 | (1/) | 1,000 | 0.4 |
| Hendry | 187,900 | 85.0 | -- | 30,000 | 3,200 | -- | 33,200 | 15.0 |
| Hernando | 223,500 | 85.2 | -- | 36,600 | 600 | 1,500 | 38,700 | 14.8 |
| Highlands | 272,400 | 90.0 | -- | 26,400 | 3,000 | 1,000 | 30,400 | 10.0 |
| Hillsborough | 412,300 | 99.2 | -- | 1,200 | -- | 2,000 | 3,200 | 0.8 |
| Holmes | 222,700 | 99.5 | -- | 300 | 600 | 300 | 1,200 | 0.5 |
| Indian River | 91,100 | 92.7 | -- | 600 | 4,500 | 2,100 | 7,200 | 7.3 |
| Jackson | 331,800 | 98.8 | -- | 400 | 3,300 | 200 | 3,900 | 1.2 |
| Jefferson | 282,900 | 97.9 | -- | 4,400 | 1,500 | 200 | 6,100 | 2.1 |
| Lafayette | 289,600 | 99.8 | -- | 300 | 300 | -- | 600 | 0.2 |
| Lake | 319,700 | 81.2 | 65,500 | 1,000 | 3,300 | 4,200 | 74,000 | 18.8 |
| Lee | 368,300 | 98.0 | -- | 1,800 | 1,300 | 4,600 | 7,700 | 2.0 |
| Leon | 232,700 | 69.6 | 100,600 | 500 | 100 | 500 | 101,700 | 30.4 |
| Levy | 532,900 | 99.7 | -- | 900 | 500 | 100 | 1,500 | 0.3 |
| Liberty | 249,600 | 48.5 | 263,000 | 300 | 800 | 700 | 264,800 | 51.5 |
| Madison | 303,200 | 99.9 | -- | 100 | 200 | -- | 300 | 0.1 |
| Manatee | 297,800 | 97.5 | -- | 100 | 7,400 | 100 | 7,600 | 2.5 |
| Marion | 541,700 | 68.4 | 241,700 | 3,800 | 4,700 | 300 | 250,500 | 31.6 |
| Martin | 204,900 | 98.6 | -- | -- | 2,900 | 100 | 3,000 | 1.4 |
| Monroe | 4,500 | 100.0 | -- | -- | -- | -- | -- | -- |
| Nassau | 358,600 | 98.7 | -- | (1/) | 3,400 | 1,300 | 4,700 | 1.3 |
| Okaloosa | 242,800 | 47.6 | -- | 264,000 | 3,200 | (1/) | 267,200 | 52.4 |
| Okeechobee | 103,400 | 99.1 | -- | (1/) | 600 | 300 | 900 | 0.9 |
| Orange | 448,200 | 99.6 | -- | 400 | 900 | 500 | 1,800 | 0.4 |
| Osceola | 483,300 | 99.8 | -- | 100 | 500 | 400 | 1,000 | 0.2 |
| Palm Beach | 111,500 | 87.6 | -- | 1,600 | 900 | 13,300 | 15,800 | 12.4 |
| Pasco | 342,700 | 97.9 | -- | 6,800 | 400 | 100 | 7,300 | 2.1 |
| Pinellas | 74,000 | 98.5 | -- | 200 | 200 | 700 | 1,100 | 1.5 |
| Polk | 745,600 | 96.7 | -- | 21,600 | 100 | 3,700 | 25,400 | 3.3 |
| Putnam | 414,800 | 92.7 | 21,900 | 3,400 | 6,600 | 600 | 32,500 | 7.3 |
| St. Johns | 321,800 | 99.4 | -- | 700 | 1,000 | 300 | 2,000 | 0.6 |
| St. Lucie | 160,400 | 98.9 | -- | -- | 1,000 | 800 | 1,800 | 1.1 |
| Santa Rosa | 389,300 | 69.2 | -- | 171,800 | 700 | 1,100 | 173,600 | 30.8 |
| Sarasota | 204,000 | 97.8 | -- | 100 | 4,100 | 400 | 4,600 | 2.2 |
| Seminole | 131,500 | 98.2 | -- | 600 | 400 | 1,400 | 2,400 | 1.8 |
| Sumter | 214,100 | 86.4 | -- | 32,700 | 900 | -- | 33,600 | 13.6 |
| Suwannee | 251,600 | 99.9 | -- | 200 | -- | -- | 200 | 0.1 |
| Taylor | 589,900 | 99.8 | -- | 200 | 900 | 100 | 1,200 | 0.2 |
| Union | 121,800 | 95.4 | -- | 800 | 5,100 | -- | 5,900 | 4.6 |
| Volusia | 520,000 | 99.1 | -- | 800 | 2,600 | 1,400 | 4,800 | 0.9 |
| Wakulla | 97,900 | 32.8 | 157,700 | 43,200 | 100 | -- | 201,000 | 67.2 |
| Walton | 440,900 | 72.6 | -- | 165,700 | 600 | -- | 166,300 | 27.4 |
| Washington | 304,000 | 99.0 | -- | 300 | 2,800 | -- | 3,100 | 1.0 |
| Total | 19,191,000 | 89.5 | 1,025,500 | 955,700 | 223,300 | 55,600 | 2,260,100 | 10.5 |

1/ Less than 50 acres.

Table 32.--Net volume^{1/} of saw timber by county and species group, 1949

| (in thousand board feet) | | | | |
|--------------------------|-------------------------|---|--------------------|-------------|
| County | Softwoods ^{2/} | Gum, maple, bay and magnolia ^{3/} | Other hardwoods | All species |
| Alachua | 499,000 | 83,700 | 81,000 | 663,700 |
| Baker | 706,400 | 50,100 | 1,000 | 757,500 |
| Bay | 157,100 | 18,300 | 13,700 | 189,100 |
| Bradford | 250,500 | 9,400 | 2,100 | 262,000 |
| Brevard | 88,700 | 1,500 | 700 | 90,900 |
| Broward | 9,300 | -- | -- | 9,300 |
| Calhoun | 100,600 | 67,100 | 107,300 | 275,000 |
| Charlotte | 54,200 | -- | -- | 54,200 |
| Citrus | 195,800 | 76,200 | 21,400 | 293,400 |
| Clay | 255,800 | 54,700 | 13,500 | 324,000 |
| Collier | 442,500 | -- | -- | 442,500 |
| Columbia | 599,800 | 46,000 | 25,700 | 671,500 |
| Dade | 30,400 | -- | -- | 30,400 |
| De Soto | 50,000 | 3,600 | 400 | 54,000 |
| Dixie | 290,300 | 90,700 | 77,600 | 458,600 |
| Duval | 257,600 | 89,200 | 27,300 | 374,100 |
| Escambia | 262,400 | 34,100 | 9,900 | 306,400 |
| Flagler | 471,000 | 44,400 | 7,100 | 522,500 |
| Franklin | 153,200 | 137,600 | 4,900 | 295,700 |
| Gadsden | 162,100 | 61,500 | 33,000 | 256,600 |
| Gilchrist | 135,100 | 600 | 5,900 | 141,600 |
| Glades | 74,700 | 400 | -- | 75,100 |
| Gulf | 220,800 | 71,100 | 26,300 | 318,200 |
| Hamilton | 356,100 | 37,300 | 10,400 | 403,800 |
| Hardee | 61,600 | 35,900 | 14,300 | 111,800 |
| Hendry | 128,100 | -- | -- | 128,100 |
| Hernando | 139,700 | 53,600 | 55,500 | 248,800 |
| Highlands | 68,800 | 26,500 | -- | 95,300 |
| Hillsborough | 181,100 | 27,700 | 45,100 | 253,900 |
| Holmes | 111,500 | 83,600 | 84,800 | 279,900 |
| Indian River | 56,500 | 1,200 | -- | 57,700 |
| Jackson | 197,700 | 124,500 | 122,700 | 444,900 |
| Jefferson | 309,200 | 231,800 | 79,900 | 620,900 |
| Lafayette | 489,700 | 16,600 | 13,300 | 519,600 |
| Lake | 191,900 | 49,400 | 9,800 | 251,100 |
| Lee | 60,500 | -- | -- | 60,500 |
| Leon | 426,500 | 83,500 | 36,300 | 546,300 |
| Levy | 617,700 | 86,400 | 96,000 | 800,100 |
| Liberty | 508,500 | 177,100 | 113,900 | 799,500 |
| Madison | 372,600 | 74,900 | 13,900 | 461,400 |
| Manatee | 74,800 | 33,400 | 1,700 | 109,900 |
| Marion | 563,800 | 65,100 | 61,700 | 690,600 |
| Martin | 20,300 | 1,500 | -- | 21,800 |
| Monroe | 5,200 | -- | -- | 5,200 |
| Nassau | 348,700 | 96,000 | 35,000 | 479,700 |
| Okaloosa | 384,200 | 31,200 | 10,200 | 425,600 |
| Okeechobee | 94,400 | 9,000 | 4,100 | 107,500 |
| Orange | 256,100 | 20,000 | 5,900 | 282,000 |
| Osceola | 174,700 | 32,500 | 2,600 | 209,800 |
| Palm Beach | 38,200 | -- | -- | 38,200 |
| Pasco | 130,500 | 19,300 | 18,900 | 168,700 |
| Pinellas | 29,600 | -- | -- | 29,600 |
| Polk | 342,400 | 47,800 | 19,000 | 409,200 |
| Putnam | 382,100 | 91,700 | 8,600 | 482,400 |
| St. Johns | 314,700 | 66,000 | 16,500 | 397,200 |
| St. Lucie | 81,700 | 7,300 | -- | 89,000 |
| Santa Rosa | 552,200 | 54,300 | 34,100 | 640,600 |
| Sarasota | 99,900 | 100 | -- | 100,000 |
| Seminole | 59,700 | 42,000 | 17,400 | 119,100 |
| Sumter | 149,100 | 41,400 | 54,800 | 245,300 |
| Suwannee | 175,800 | 31,600 | 5,800 | 213,200 |
| Taylor | 529,700 | 54,500 | 38,900 | 623,100 |
| Union | 252,900 | 59,300 | 5,600 | 317,800 |
| Volusia | 425,000 | 58,100 | 16,300 | 499,400 |
| Wakulla | 321,400 | 23,300 | 30,000 | 374,700 |
| Walton | 205,600 | 94,400 | 47,600 | 347,600 |
| Washington | 119,000 | 51,700 | 46,200 | 216,900 |
| Total | 15,876,700 | 3,081,700 | 1,635,600 | 20,594,000 |

^{1/} Log scale, International 1/4-inch rule.^{2/} Includes pine, cypress, and cedar.^{3/} Includes other soft-textured hardwoods.

Table 33.--Net volume^{1/} of saw timber by county, species group, and diameter-class group, 1949

| County | Softwoods | | Hardwoods | | All species | |
|--------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|----------------|----------------|
| | 9-14 inches | 15+ inches | 11-16 inches | 17+ inches | Soft- woods | Hard- woods |
| | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Percent</u> | <u>Percent</u> |
| Alachua | 459,200 | 39,800 | 114,700 | 50,000 | 75.2 | 24.8 |
| Baker | 609,900 | 96,500 | 30,400 | 20,700 | 93.3 | 6.7 |
| Bay | 110,300 | 46,800 | 29,900 | 2,100 | 83.1 | 16.9 |
| Bradford | 225,000 | 25,500 | 9,300 | 2,200 | 95.6 | 4.4 |
| Brevard | 80,700 | 8,000 | 400 | 1,800 | 97.6 | 2.4 |
| Broward | 9,300 | -- | -- | -- | 100.0 | -- |
| Calhoun | 92,200 | 8,400 | 115,800 | 58,600 | 36.6 | 63.4 |
| Charlotte | 32,600 | 21,600 | -- | -- | 100.0 | -- |
| Citrus | 177,900 | 17,900 | 51,100 | 46,500 | 66.7 | 33.3 |
| Clay | 225,400 | 30,400 | 32,300 | 35,900 | 79.0 | 21.0 |
| Collier | 346,100 | 96,400 | -- | -- | 100.0 | -- |
| Columbia | 533,700 | 66,100 | 49,300 | 22,400 | 89.3 | 10.7 |
| Dade | 30,400 | -- | -- | -- | 100.0 | -- |
| De Soto | 48,700 | 1,300 | 4,000 | -- | 92.6 | 7.4 |
| Dixie | 283,500 | 6,800 | 106,400 | 61,900 | 63.3 | 36.7 |
| Duval | 218,900 | 38,700 | 79,200 | 37,300 | 68.9 | 31.1 |
| Escambia | 255,500 | 6,900 | 27,100 | 16,900 | 85.6 | 14.4 |
| Flagler | 421,500 | 49,500 | 36,000 | 15,500 | 90.1 | 9.9 |
| Franklin | 124,600 | 28,600 | 123,600 | 18,900 | 51.8 | 48.2 |
| Gadsden | 112,100 | 50,000 | 77,600 | 16,900 | 63.2 | 36.8 |
| Gilchrist | 121,700 | 13,400 | 4,000 | 2,500 | 95.4 | 4.6 |
| Glades | 73,400 | 1,300 | 400 | -- | 99.5 | 0.5 |
| Gulf | 169,700 | 51,100 | 56,200 | 41,200 | 69.4 | 30.6 |
| Hamilton | 326,800 | 29,300 | 42,000 | 5,700 | 88.2 | 11.8 |
| Hardee | 57,900 | 3,700 | 18,300 | 31,900 | 55.1 | 44.9 |
| Hendry | 86,900 | 41,200 | -- | -- | 100.0 | -- |
| Hernando | 124,300 | 15,400 | 60,600 | 48,500 | 56.1 | 43.9 |
| Highlands | 59,500 | 9,300 | 16,100 | 10,400 | 72.2 | 27.8 |
| Hillsborough | 172,200 | 8,900 | 42,500 | 30,300 | 71.3 | 28.7 |
| Holmes | 87,500 | 24,000 | 109,400 | 59,000 | 39.8 | 60.2 |
| Indian River | 54,800 | 1,700 | 1,200 | -- | 97.9 | 2.1 |
| Jackson | 144,000 | 53,700 | 156,700 | 90,500 | 44.4 | 55.6 |
| Jefferson | 242,700 | 66,500 | 216,800 | 94,900 | 49.8 | 50.2 |
| Lafayette | 460,900 | 28,800 | 18,300 | 11,600 | 94.2 | 5.8 |
| Lake | 156,500 | 35,400 | 43,200 | 16,000 | 76.4 | 23.6 |
| Lee | 48,800 | 11,700 | -- | -- | 100.0 | -- |
| Leon | 319,700 | 106,800 | 46,600 | 73,200 | 78.1 | 21.9 |
| Levy | 531,800 | 85,900 | 129,100 | 53,300 | 77.2 | 22.8 |
| Liberty | 314,400 | 194,100 | 158,000 | 133,000 | 63.6 | 36.4 |
| Madison | 332,200 | 40,400 | 76,700 | 12,100 | 80.8 | 19.2 |
| Manatee | 45,500 | 29,300 | 23,900 | 11,200 | 68.1 | 31.9 |
| Marion | 455,100 | 108,700 | 84,400 | 42,400 | 81.6 | 18.4 |
| Martin | 20,300 | -- | 1,500 | -- | 93.1 | 6.9 |
| Monroe | 5,200 | -- | -- | -- | 100.0 | -- |
| Nassau | 322,200 | 26,500 | 102,800 | 28,200 | 72.7 | 27.3 |
| Okaloosa | 283,900 | 100,300 | 19,500 | 21,900 | 90.3 | 9.7 |
| Okeechobee | 84,800 | 9,600 | 5,100 | 8,000 | 87.8 | 12.2 |
| Orange | 192,800 | 63,300 | 22,300 | 3,600 | 90.8 | 9.2 |
| Osceola | 161,700 | 13,000 | 29,600 | 5,500 | 83.3 | 16.7 |
| Palm Beach | 38,200 | -- | -- | -- | 100.0 | -- |
| Pasco | 129,500 | 1,000 | 16,300 | 21,900 | 77.4 | 22.6 |
| Pinellas | 20,700 | 8,900 | -- | -- | 100.0 | -- |
| Polk | 311,200 | 31,200 | 46,700 | 20,100 | 83.7 | 16.3 |
| Putnam | 281,800 | 100,300 | 79,700 | 20,600 | 79.2 | 20.8 |
| St. Johns | 253,400 | 61,300 | 49,600 | 32,900 | 79.2 | 20.8 |
| St. Lucie | 77,700 | 4,000 | 7,300 | -- | 91.8 | 8.2 |
| Santa Rosa | 434,000 | 118,200 | 46,200 | 42,200 | 86.2 | 13.8 |
| Sarasota | 87,200 | 12,700 | 100 | -- | 99.9 | 0.1 |
| Seminole | 44,000 | 15,700 | 46,800 | 12,600 | 50.1 | 49.9 |
| Sumter | 131,000 | 18,100 | 57,400 | 38,800 | 60.8 | 39.2 |
| Suwannee | 132,900 | 42,900 | 28,300 | 9,100 | 82.5 | 17.5 |
| Taylor | 489,000 | 40,700 | 61,900 | 31,500 | 85.0 | 15.0 |
| Union | 220,100 | 32,800 | 40,200 | 24,700 | 79.6 | 20.4 |
| Volusia | 355,200 | 69,800 | 54,700 | 19,700 | 85.1 | 14.9 |
| Wakulla | 293,600 | 27,800 | 46,000 | 7,300 | 85.8 | 14.2 |
| Walton | 142,300 | 63,300 | 108,600 | 33,400 | 59.1 | 40.9 |
| Washington | 113,000 | 6,000 | 62,400 | 35,500 | 54.9 | 45.1 |
| Total | 13,409,500 | 2,467,200 | 3,124,500 | 1,592,800 | 77.1 | 22.9 |

^{1/} Log scale, International 1/4-inch rule.

Table 34.--Net volume^{1/} of all timber by county, pulping species group, and tree diameter group, 1949

| PRIMARY GROWING STOCK (in thousand cords) | | | | | | | |
|---|----------------|---------------|---|---------------|----------------|---------------|----------------|
| County | Yellow pines | | Gum, maple, bay and magnolia ^{2/} | | Other species | | All species |
| | 5-12 inches | 13+ inches | 5-12 inches | 13+ inches | 5-12 inches | 13+ inches | |
| Alachua | 1,582 | 361 | 207 | 173 | 273 | 205 | 2,801 |
| Baker | 2,020 | 424 | 183 | 111 | 427 | 102 | 3,267 |
| Bay | 1,077 | 122 | 186 | 30 | 161 | 40 | 1,616 |
| Bradford | 889 | 96 | 42 | 16 | 198 | 55 | 1,296 |
| Brevard | 364 | 26 | 3 | 4 | 18 | 2 | 417 |
| Broward | 40 | -- | -- | -- | 9 | -- | 49 |
| Calhoun | 399 | 20 | 241 | 118 | 259 | 244 | 1,281 |
| Charlotte | 87 | 62 | -- | -- | 73 | 10 | 232 |
| Citrus | 484 | 89 | 108 | 167 | 277 | 128 | 1,253 |
| Clay | 948 | 249 | 106 | 122 | 137 | 14 | 1,576 |
| Collier | 416 | 100 | 12 | -- | 1,266 | 310 | 2,104 |
| Columbia | 2,090 | 345 | 514 | 81 | 448 | 109 | 3,587 |
| Dade | 267 | -- | -- | -- | -- | -- | 267 |
| De Soto | 187 | 2 | 53 | -- | 151 | 15 | 408 |
| Dixie | 772 | 101 | 454 | 165 | 730 | 254 | 2,476 |
| Duval | 794 | 161 | 221 | 176 | 271 | 74 | 1,697 |
| Escambia | 1,626 | 79 | 204 | 62 | 64 | 14 | 2,049 |
| Flagler | 987 | 194 | 231 | 80 | 872 | 164 | 2,528 |
| Franklin | 594 | 143 | 248 | 285 | 111 | 16 | 1,397 |
| Gadsden | 498 | 207 | 350 | 103 | 146 | 61 | 1,365 |
| Gilchrist | 223 | 71 | 9 | -- | 225 | 42 | 570 |
| Glades | 171 | 4 | -- | 1 | 187 | 14 | 377 |
| Gulf | 845 | 31 | 119 | 169 | 221 | 183 | 1,568 |
| Hamilton | 1,228 | 115 | 281 | 52 | 304 | 23 | 2,003 |
| Hardee | 332 | 21 | 151 | 78 | 55 | 38 | 675 |
| Hendry | 285 | 138 | -- | -- | 186 | 11 | 620 |
| Hernando | 278 | 98 | 159 | 96 | 350 | 141 | 1,122 |
| Highlands | 392 | 31 | 133 | 50 | 68 | -- | 674 |
| Hillsborough | 574 | 48 | 86 | 51 | 291 | 131 | 1,181 |
| Holmes | 521 | 87 | 357 | 174 | 200 | 181 | 1,520 |
| Indian River | 149 | 13 | 6 | -- | 64 | 17 | 249 |
| Jackson | 740 | 177 | 710 | 202 | 431 | 245 | 2,505 |
| Jefferson | 783 | 229 | 657 | 458 | 384 | 192 | 2,703 |
| Lafayette | 974 | 417 | 103 | 34 | 339 | 56 | 1,923 |
| Lake | 546 | 153 | 150 | 104 | 412 | 48 | 1,413 |
| Lee | 225 | 26 | 1 | -- | 350 | 9 | 611 |
| Leon | 1,159 | 483 | 260 | 182 | 138 | 82 | 2,304 |
| Levy | 1,482 | 293 | 402 | 158 | 1,332 | 319 | 3,986 |
| Liberty | 1,319 | 443 | 463 | 377 | 413 | 380 | 3,395 |
| Madison | 782 | 237 | 425 | 115 | 535 | 58 | 2,152 |
| Manatee | 341 | 71 | 44 | 70 | 14 | 4 | 544 |
| Marion | 1,770 | 607 | 215 | 129 | 171 | 141 | 3,033 |
| Martin | 167 | -- | 12 | 2 | 15 | -- | 196 |
| Monroe | 1 | -- | -- | -- | 52 | 3 | 56 |
| Nassau | 1,399 | 276 | 357 | 191 | 255 | 77 | 2,555 |
| Okaloosa | 704 | 628 | 161 | 67 | 47 | 23 | 1,630 |
| Okeechobee | 346 | 13 | 40 | 15 | 122 | 64 | 600 |
| Orange | 525 | 213 | 152 | 42 | 524 | 59 | 1,515 |
| Osceola | 424 | 24 | 172 | 44 | 645 | 97 | 1,406 |
| Palm Beach | 274 | 22 | -- | -- | 18 | -- | 314 |
| Pasco | 449 | 25 | 65 | 36 | 349 | 52 | 976 |
| Pinellas | 69 | 32 | -- | -- | 17 | 1 | 119 |
| Polk | 1,010 | 151 | 280 | 89 | 810 | 110 | 2,450 |
| Putnam | 1,103 | 344 | 326 | 191 | 288 | 56 | 2,308 |
| St. Johns | 873 | 275 | 197 | 155 | 187 | 78 | 1,765 |
| St. Lucie | 187 | 38 | 75 | 9 | 169 | 44 | 522 |
| Santa Rosa | 2,215 | 395 | 181 | 105 | 153 | 127 | 3,176 |
| Sarasota | 201 | 125 | -- | -- | 1 | -- | 327 |
| Seminole | 109 | 46 | 135 | 65 | 127 | 49 | 531 |
| Sumter | 375 | 75 | 225 | 88 | 479 | 140 | 1,382 |
| Suwannee | 536 | 183 | 100 | 56 | 65 | 19 | 959 |
| Taylor | 1,805 | 303 | 357 | 112 | 648 | 122 | 3,347 |
| Union | 632 | 136 | 205 | 121 | 182 | 47 | 1,323 |
| Volusia | 679 | 200 | 292 | 96 | 1,026 | 198 | 2,491 |
| Wakulla | 1,267 | 231 | 141 | 22 | 161 | 55 | 1,877 |
| Walton | 1,022 | 204 | 724 | 121 | 170 | 143 | 2,384 |
| Washington | 489 | 54 | 296 | 70 | 257 | 95 | 1,261 |
| Total | 48,101 | 10,567 | 12,587 | 5,890 | 19,328 | 5,791 | 102,264 |

^{1/} Sound wood and bark, excluding volume of palms. Limbs of sound sawlog-size hardwoods are included in secondary growing stock volumes.

^{2/} Includes other soft-textured hardwoods.

Table 34.--Net volume^{1/} of all timber by county, pulping species group, and tree diameter group, 1949 (cont'd.)

| SECONDARY GROWING STOCK (in thousand cords) | | | | | | | |
|---|----------------|---------------|---|---------------|----------------|---------------|----------------|
| County | Yellow pines | | Gum, maple, bay and magnolia ^{2/} | | Other species | | All species |
| | 5-12 inches | 13+ inches | 5-12 inches | 13+ inches | 5-12 inches | 13+ inches | |
| Alachua | 34 | -- | 123 | 180 | 308 | 364 | 1,009 |
| Baker | 46 | 22 | 143 | 65 | 57 | 8 | 341 |
| Bay | 18 | 3 | 33 | 34 | 70 | 8 | 166 |
| Bradford | 7 | 4 | 60 | 19 | 84 | 21 | 195 |
| Brevard | 20 | 4 | -- | 4 | 63 | 35 | 126 |
| Broward | 6 | -- | -- | -- | 5 | 1 | 12 |
| Calhoun | 11 | -- | 49 | 84 | 323 | 242 | 709 |
| Charlotte | -- | 4 | -- | -- | 34 | 23 | 61 |
| Citrus | 2 | -- | 61 | 71 | 444 | 369 | 947 |
| Clay | 1 | 11 | 91 | 158 | 313 | 204 | 778 |
| Collier | -- | -- | 51 | -- | 606 | 206 | 863 |
| Columbia | 9 | 2 | 153 | 95 | 187 | 139 | 585 |
| Dade | -- | -- | -- | -- | -- | -- | -- |
| De Soto | -- | -- | 55 | 9 | 140 | 45 | 249 |
| Dixie | 3 | -- | 210 | 186 | 486 | 566 | 1,451 |
| Duval | 1 | 9 | 146 | 191 | 152 | 229 | 728 |
| Escambia | 2 | 6 | 113 | 86 | 285 | 10 | 502 |
| Flagler | 22 | 24 | 76 | 45 | 108 | 134 | 409 |
| Franklin | 12 | 26 | 66 | 306 | 70 | 8 | 488 |
| Gadsden | 9 | -- | 316 | 205 | 177 | 200 | 907 |
| Gilchrist | 3 | -- | 19 | -- | 342 | 84 | 448 |
| Glades | -- | -- | -- | -- | 23 | 12 | 35 |
| Gulf | 16 | -- | 214 | 487 | 148 | 120 | 985 |
| Hamilton | 25 | 16 | 108 | 94 | 207 | 131 | 581 |
| Hardee | 4 | -- | 27 | 25 | 118 | 77 | 251 |
| Hendry | 7 | 9 | 4 | -- | 58 | 40 | 118 |
| Hernando | -- | -- | 94 | 68 | 454 | 211 | 827 |
| Highlands | 10 | -- | 69 | 23 | 14 | 11 | 127 |
| Hillsborough | 16 | -- | 59 | 24 | 334 | 247 | 680 |
| Holmes | 3 | -- | 99 | 95 | 66 | 118 | 381 |
| Indian River | 1 | -- | 10 | -- | 93 | 13 | 117 |
| Jackson | 19 | 2 | 265 | 258 | 304 | 354 | 1,202 |
| Jefferson | 28 | 9 | 232 | 337 | 156 | 255 | 1,017 |
| Lafayette | 6 | -- | 42 | 6 | 156 | 36 | 246 |
| Lake | 82 | 33 | 169 | 127 | 459 | 230 | 1,100 |
| Lee | 6 | -- | -- | -- | 125 | 8 | 139 |
| Leon | 8 | 6 | 94 | 95 | 154 | 170 | 527 |
| Levy | 4 | 8 | 128 | 180 | 462 | 618 | 1,400 |
| Liberty | 11 | -- | 196 | 399 | 344 | 265 | 1,215 |
| Madison | 23 | 20 | 173 | 106 | 405 | 201 | 928 |
| Manatee | 8 | -- | 30 | 25 | 74 | 63 | 200 |
| Marion | 100 | 9 | 130 | 196 | 530 | 555 | 1,520 |
| Martin | 10 | -- | 32 | -- | 116 | 8 | 166 |
| Monroe | -- | -- | -- | -- | 4 | 1 | 5 |
| Nassau | 8 | 4 | 210 | 152 | 207 | 321 | 902 |
| Okaloosa | 68 | -- | 157 | 311 | 199 | 45 | 780 |
| Okeechobee | 1 | -- | 34 | 22 | 26 | 34 | 117 |
| Orange | 1 | -- | 139 | 79 | 467 | 32 | 718 |
| Osceola | 13 | -- | 188 | 110 | 328 | 395 | 1,034 |
| Palm Beach | 3 | -- | -- | -- | 20 | -- | 23 |
| Pasco | -- | -- | 59 | 33 | 338 | 103 | 533 |
| Pinellas | 1 | -- | -- | -- | 8 | 14 | 23 |
| Polk | 52 | -- | 253 | 73 | 376 | 116 | 870 |
| Putnam | 3 | 18 | 193 | 286 | 591 | 206 | 1,297 |
| St. Johns | 23 | 16 | 151 | 157 | 210 | 133 | 690 |
| St. Lucie | 25 | -- | 56 | 8 | 13 | 40 | 142 |
| Santa Rosa | 4 | 4 | 168 | 163 | 522 | 87 | 948 |
| Sarasota | 5 | 18 | 4 | 1 | 51 | 40 | 119 |
| Seminole | 13 | -- | 43 | 51 | 143 | 146 | 396 |
| Sumter | 6 | -- | 333 | 158 | 236 | 396 | 1,129 |
| Suwannee | 5 | -- | 35 | 67 | 408 | 156 | 671 |
| Taylor | 52 | 30 | 175 | 145 | 419 | 281 | 1,102 |
| Union | 8 | 4 | 66 | 84 | 46 | 32 | 240 |
| Volusia | 70 | 29 | 229 | 107 | 447 | 291 | 1,173 |
| Wakulla | 34 | -- | 61 | 70 | 239 | 188 | 592 |
| Walton | 37 | 8 | 412 | 314 | 316 | 160 | 1,247 |
| Washington | -- | -- | 172 | 254 | 196 | 106 | 728 |
| Total | 1,025 | 358 | 7,078 | 6,928 | 14,864 | 9,962 | 40,215 |

^{1/} Sound wood and bark, excluding volume of palms. Limbs of sound sawlog-size hardwoods are included in secondary growing stock volumes.

^{2/} Includes other soft-textured hardwoods.

Table 35.--Commodity drain from primary growing stock by county and species group, 1948

| County | Saw timber | | | All sound trees five inches d.b.h. and larger | | |
|--------------|-----------------------------|-----------------------------|-----------------------------|--|--------------|--------------|
| | Softwoods | Hardwoods | Total | Softwoods | Hardwoods | Total |
| | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Thousand bd. ft.</u> | <u>Cords</u> | <u>Cords</u> | <u>Cords</u> |
| Alachua | 32,442 | 4,420 | 36,862 | 95,500 | 12,300 | 107,800 |
| Baker | 18,885 | 273 | 19,158 | 61,900 | 800 | 62,700 |
| Bay | 4,722 | 66 | 4,788 | 19,600 | 300 | 19,900 |
| Bradford | 12,388 | 569 | 12,957 | 50,000 | 1,600 | 51,600 |
| Brevard | 3,792 | 1 | 3,793 | 9,400 | (2/) | 9,400 |
| Broward | 353 | (1/) | 353 | 800 | (2/) | 800 |
| Calhoun | 6,578 | 6,626 | 13,204 | 22,800 | 17,900 | 40,700 |
| Charlotte | 823 | (1/) | 823 | 1,700 | (2/) | 1,700 |
| Citrus | 4,035 | 1,087 | 5,122 | 11,900 | 2,900 | 14,800 |
| Clay | 12,565 | 1,925 | 14,490 | 39,300 | 4,700 | 44,000 |
| Collier | 44,950 | (1/) | 44,950 | 101,100 | (2/) | 101,100 |
| Columbia | 18,010 | 2,682 | 20,692 | 56,400 | 7,300 | 63,700 |
| Dade | 1,600 | 1 | 1,601 | 3,800 | (2/) | 3,800 |
| De Soto | 4,869 | 626 | 5,495 | 12,000 | 1,700 | 13,700 |
| Dixie | 3,866 | 1,316 | 5,182 | 10,300 | 3,700 | 14,000 |
| Duval | 31,186 | 1,070 | 32,256 | 102,200 | 3,000 | 105,200 |
| Escambia | 18,147 | 2,288 | 20,435 | 60,600 | 5,600 | 66,200 |
| Flagler | 7,436 | 7 | 7,443 | 29,200 | (2/) | 29,200 |
| Franklin | 4,103 | 28 | 4,131 | 10,800 | 100 | 10,900 |
| Gadsden | 12,671 | 7,386 | 20,057 | 36,600 | 17,200 | 53,800 |
| Gilchrist | 7,756 | 290 | 8,046 | 22,200 | 800 | 23,000 |
| Glades | 164 | (1/) | 164 | 400 | (2/) | 400 |
| Gulf | 15,667 | 2,143 | 17,810 | 37,400 | 4,800 | 42,200 |
| Hamilton | 12,384 | 649 | 13,033 | 40,200 | 1,900 | 42,100 |
| Hardee | 8,243 | 1,059 | 9,302 | 25,400 | 2,700 | 28,100 |
| Hendry | 949 | (1/) | 949 | 1,900 | (2/) | 1,900 |
| Hernando | 12,605 | 2,021 | 14,626 | 31,500 | 5,200 | 36,700 |
| Highlands | 1,067 | (1/) | 1,067 | 3,100 | (2/) | 3,100 |
| Hillsborough | 16,231 | 11,172 | 27,403 | 45,200 | 30,900 | 76,100 |
| Holmes | 17,987 | 2,476 | 20,463 | 45,900 | 6,300 | 52,200 |
| Indian River | 1,093 | 1 | 1,094 | 3,700 | (2/) | 3,700 |
| Jackson | 14,478 | 7,467 | 21,945 | 45,200 | 18,900 | 64,100 |
| Jefferson | 10,074 | 5,554 | 15,628 | 26,000 | 15,500 | 41,500 |
| Lafayette | 24,944 | 112 | 25,056 | 58,100 | 300 | 58,400 |
| Lake | 18,904 | 662 | 19,566 | 55,900 | 2,000 | 57,900 |
| Lee | 2,280 | (1/) | 2,280 | 5,900 | (2/) | 5,900 |
| Leon | 6,969 | 2,177 | 9,146 | 21,600 | 6,100 | 27,700 |
| Levy | 25,473 | 5,945 | 31,418 | 67,500 | 14,600 | 82,100 |
| Liberty | 11,996 | 4,511 | 16,507 | 36,400 | 10,700 | 47,100 |
| Madison | 19,836 | 4,644 | 24,480 | 55,700 | 12,900 | 68,600 |
| Manatee | 2,417 | 110 | 2,527 | 6,200 | 300 | 6,500 |
| Marion | 46,447 | 5,332 | 51,779 | 158,100 | 14,700 | 172,800 |
| Martin | 856 | (1/) | 856 | 1,700 | (2/) | 1,700 |
| Monroe | 36 | 4 | 40 | 100 | (2/) | 100 |
| Nassau | 21,479 | 559 | 22,038 | 70,100 | 1,600 | 71,700 |
| Okaloosa | 13,839 | 1,012 | 14,851 | 47,000 | 2,900 | 49,900 |
| Okeechobee | 3,140 | (1/) | 3,140 | 7,500 | (2/) | 7,500 |
| Orange | 6,619 | 419 | 7,038 | 19,900 | 1,200 | 21,100 |
| Osceola | 22,754 | 384 | 23,138 | 52,700 | 900 | 53,600 |
| Palm Beach | 2,585 | 1 | 2,586 | 5,100 | (2/) | 5,100 |
| Pasco | 22,468 | 4,434 | 26,902 | 53,300 | 12,100 | 65,400 |
| Pinellas | 2,250 | 1 | 2,251 | 5,200 | (2/) | 5,200 |
| Polk | 29,134 | 1,219 | 30,353 | 71,700 | 3,200 | 74,900 |
| Putnam | 26,554 | 4,768 | 31,322 | 85,500 | 11,900 | 97,400 |
| St. Johns | 18,775 | 2,989 | 21,764 | 60,600 | 7,400 | 68,000 |
| St. Lucie | 588 | (1/) | 588 | 1,100 | (2/) | 1,100 |
| Santa Rosa | 9,278 | 720 | 9,998 | 34,700 | 2,300 | 37,000 |
| Sarasota | 3,395 | (1/) | 3,395 | 6,700 | (2/) | 6,700 |
| Seminole | 4,002 | 285 | 4,287 | 14,400 | 800 | 15,200 |
| Sumter | 5,729 | 1,037 | 6,766 | 19,500 | 2,900 | 22,400 |
| Suwannee | 24,340 | 395 | 24,735 | 75,800 | 1,400 | 77,200 |
| Taylor | 22,838 | 1,032 | 23,870 | 52,800 | 2,900 | 55,700 |
| Union | 10,397 | 390 | 10,787 | 38,400 | 1,200 | 39,600 |
| Volusia | 21,910 | 512 | 22,422 | 64,500 | 1,500 | 66,000 |
| Wakulla | 5,840 | 2,048 | 7,888 | 15,900 | 5,400 | 21,300 |
| Walton | 12,258 | 2,555 | 14,813 | 40,600 | 6,800 | 47,400 |
| Washington | 11,466 | 2,051 | 13,517 | 37,900 | 5,600 | 43,500 |
| Total | 823,915 | 113,511 | 937,426 | 2,412,100 | 299,700 | 2,711,800 |

1/ Less than 500 board feet.

2/ Less than 50 cords.

STANDARD FOREST SURVEY TABLES

As each state throughout the Nation is reported upon by the Forest Survey following initial or resurveys, a standard set of tables presenting information on forest area, ownership, timber volume, growth and drain will be prepared. With such tables, forest statistics for any region or group of states can easily be compiled. Standard tables prepared for the State of Florida, based on the 1949 survey, appear on the following pages.

Table 36.--Land area by major classes
of forest land. Florida, 1949

| Class of land | Land area |
|------------------------------|-----------------------|
| | <u>Thousand acres</u> |
| Forest land | |
| Commercial | 21,451 |
| Noncommercial | 1,268 |
| Reserved | |
| Commercial | 46 |
| Noncommercial | 282 |
| Total forest land | 23,047 |
| Nonforest land ^{1/} | 11,681 |
| Total land | 34,728 |

^{1/} Includes 249 thousand acres of water according to Survey standards of area classification but defined by the Bureau of Census as land.

Table 37.--Commercial forest land area by ownership class by stand-size
class. Florida, 1949

| Ownership class | Total | Saw- timber stands | Pole- timber stands | Seedling & sapling stands | Nonstocked & other areas n.e.c. |
|-------------------------------|---------------------------|---------------------------|---------------------------|---------------------------------|---------------------------------------|
| | <u>Thousand acres</u> | <u>Thousand acres</u> | <u>Thousand acres</u> | <u>Thousand acres</u> | <u>Thousand acres</u> |
| Federally owned or managed | | | | | |
| National forest | 1,025 | 212 | 327 | 213 | 273 |
| Indian | 36 | (<u>1</u> /) | (<u>1</u> /) | 1 | 35 |
| Other | 920 | 141 | 110 | 56 | 613 |
| Total Federal | 1,981 | 353 | 437 | 270 | 921 |
| State | 223 | 35 | 16 | 7 | 165 |
| County & municipal | 56 | 6 | 4 | 2 | 44 |
| Private | 19,191 | 2,839 | 3,073 | 2,017 | 11,262 |
| Total all ownerships | 21,451 | 3,233 | 3,530 | 2,296 | 12,392 |

1/ Less than 500 acres.

Table 38.--Volume of live saw timber and primary growing stock
on commercial forest land by stand-size class. Florida, 1949

| Stand-size class | Volume | |
|--|------------------------|--------------------------|
| | Live saw timber | Primary growing stock |
| | <u>Million bd. ft.</u> | <u>Million cu. ft.</u> |
| Saw-timber stands | 13,517 | 3,933 |
| Pole-timber stands | 2,975 | 1,914 |
| Seedling and sapling stands | 1,055 | 442 |
| Nonstocked and other areas not elsewhere classified | 3,047 | 1,068 |
| Total all stands | 20,594 | 7,357 |

Table 39.--Volume of live saw timber and primary growing stock on commercial forest land by ownership class. Florida, 1949

| Ownership class | Volume | |
|----------------------------|------------------------|------------------------|
| | Live saw timber | Primary growing stock |
| | <u>Million bd. ft.</u> | <u>Million cu. ft.</u> |
| Federally owned or managed | | |
| National forest | 1,331 | 520 |
| Indian | 12 | 6 |
| Other | 948 | 346 |
| Total Federal | 2,291 | 872 |
| State | 201 | 71 |
| County and municipal | 39 | 15 |
| Private | | |
| Farm | (<u>1</u> /) | (<u>1</u> /) |
| Industrial and other | (<u>1</u> /) | (<u>1</u> /) |
| Total private | 18,063 | 6,399 |
| Total all ownerships | 20,594 | 7,357 |

1/ Data not available.

Table 40.--Volume of live saw timber and primary growing stock on
commercial forest land by species. Florida, 1949

| Species | Volume | |
|------------------------------|------------------------|------------------------|
| | Live saw timber | Primary growing stock |
| | <u>Million bd. ft.</u> | <u>Million cu. ft.</u> |
| Softwoods: | | |
| Longleaf and slash pines | 10,768 | 3,631 |
| Shortleaf and loblolly pines | 1,302 | 324 |
| Other southern yellow pines | 621 | 196 |
| Spruce and balsam fir | -- | -- |
| White and red pines | -- | -- |
| Jack pine | -- | -- |
| Hemlock | -- | -- |
| Cypress | 3,095 | 1,199 |
| Other eastern softwoods | 91 | 24 |
| Total softwoods | 15,877 | 5,374 |
| Hardwoods: | | |
| White oaks | 319 | 98 |
| Red oaks | 768 | 295 |
| Yellow birch | -- | -- |
| Sugar maple | -- | -- |
| Soft maples | 190 | 121 |
| Beech | -- | -- |
| Sweetgum | 629 | 237 |
| Tupelo and black gum | 1,578 | 654 |
| Ash | 208 | 117 |
| Hickory | 157 | 57 |
| Cottonwood and aspen | -- | -- |
| Basswood | 25 | 10 |
| Yellow-poplar | 40 | 19 |
| Black walnut | -- | -- |
| Other eastern hardwoods | 803 | 375 |
| Total hardwoods | 4,717 | 1,983 |
| Total all species | 20,594 | 7,357 |

Table 41.--All-timber volume on commercial forest
land by kind of material. Florida, 1949

| Kind of material | Volume |
|--------------------------|---------------------------|
| | <u>Million cubic feet</u> |
| Live all timber | |
| Primary growing stock | 7,357 |
| Secondary growing stock | <u>1/</u> 3,965 |
| Total | 11,322 |
| Salvable dead all timber | -- |
| Total all timber | 11,322 |

1/ Includes 1,009 million cu. ft. of palm.

Table 42.--Net growth and normal mortality of live saw timber and primary growing stock on commercial forest land by species group. Florida, 1948

| Species group | Live saw-timber volume | | Primary growing stock | |
|---------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| | Current annual net growth | Current annual normal mortality | Current annual net growth | Current annual normal mortality |
| | <u>Million</u> <u>bd. ft.</u> | <u>Million</u> <u>bd. ft.</u> | <u>Million</u> <u>cu. ft.</u> | <u>Million</u> <u>cu. ft.</u> |
| Softwoods | 935 | 78 | 291 | 27 |
| Hardwoods | 190 | 27 | 79 | 9 |
| Total | 1,125 | 105 | 370 | 36 |

Table 43.--Commodity drain of live saw-timber volume and primary growing stock on commercial forest land by species group. Florida, 1948

| Species group | Live saw-timber volume | | | Primary growing stock | | |
|---------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| | Cutting drain | Logging waste | Commodity drain ^{1/} | Cutting drain | Logging waste | Commodity drain ^{1/} |
| | <u>Million</u> <u>bd. ft.</u> | <u>Million</u> <u>bd. ft.</u> | <u>Million</u> <u>bd. ft.</u> | <u>Million</u> <u>cu. ft.</u> | <u>Million</u> <u>cu. ft.</u> | <u>Million</u> <u>cu. ft.</u> |
| Softwoods | 859 | -35 | 824 | 198 | 8 | 206 |
| Hardwoods | 111 | 2 | 113 | 18 | 8 | 26 |
| Total | 970 | -33 | 937 | 216 | 16 | 232 |

^{1/} Total of cutting drain and logging waste.

Table 44.--Commodity production by timber products in cubic volume and
in standard units. Florida, 1948

| Timber products class | Quantity | | |
|--|------------------|------------------------------|-----------|
| | Cubic volume | Standard units | |
| | | Unit | Number |
| | <u>M cu. ft.</u> | | |
| Sawlogs (for lumber, timber and saw ties) | 88,820 | M board feet ^{1/} | 546,900 |
| Veneer bolts | 13,590 | M board feet ^{1/} | 86,200 |
| Cooperage bolts | 1,640 | M board feet ^{1/} | 10,500 |
| Pulpwood bolts | 96,960 | Standard cords ^{2/} | 1,221,200 |
| Fuel wood | 28,400 | Standard cords ^{2/} | 351,700 |
| Chemical wood | 39,560 | Standard cords ^{2/} | 608,700 |
| Piling | 740 | Linear feet | 1,048,500 |
| Poles | 5,330 | Pieces | 373,200 |
| Posts (round and split) | 1,120 | Pieces | 1,710,400 |
| Hewn ties | 8,340 | Pieces | 1,402,100 |
| Round mine timbers | -- | Pieces | -- |
| Miscellaneous | 1,520 | Cubic feet | 1,520 |
| Total all products | 286,020 | -- | -- |

^{1/} Board feet, International 1/4-inch rule.

^{2/} Standard cords--rough wood (unpeeled). A pile of stacked wood 4 feet by 8 feet within its outside surface.

Table 45.--Area of commercial forest land by generalized forest type. Florida, 1949

| Forest type ^{1/} | Area |
|-------------------------------------|-----------------------|
| | <u>Thousand acres</u> |
| Longleaf-slash pine | 12,993 |
| Loblolly-shortleaf pine | 1,144 |
| Spruce-fir | -- |
| White-red-jack pine (No. pine) | -- |
| Maple-beech birch (No. hardwood) | -- |
| Oak-hickory | 2,481 |
| Hardwood-pine | 654 |
| Mixed hardwoods | -- |
| Aspen birch | -- |
| Swamp and bottomland forests | 4,179 |
| Total | 21,451 |

^{1/} Forest type acreages in this table were computed on a cubic-volume basis except for seedling and sapling stands, where number of stems were the criteria. Specifications required 50 percent of the cubic volume or number of stems of the indicated species except for the hardwood-pine type which required 25 percent pine.

Table 46.--Live all-timber volume on commercial forest land by
kind of growing stock, species group, tree size
class, and class of material. Florida, 1949

| Kind of growing stock, tree-size class, and class of material | Total | Softwoods | Hardwoods |
|---|----------------------------------|----------------------------------|----------------------------------|
| | <u>Million</u> <u>cu. ft.</u> | <u>Million</u> <u>cu. ft.</u> | <u>Million</u> <u>cu. ft.</u> |
| Primary growing stock | | | |
| Live saw-timber trees | | | |
| Sawlog portion | 3,502 | 2,687 | 815 |
| Top portion | 771 | 592 | 179 |
| Total live saw timber trees | 4,273 | 3,279 | 994 |
| Live pole-timber trees | 3,084 | 2,095 | 989 |
| Total primary growing stock | 7,357 | 5,374 | 1,983 |
| Secondary growing stock | | | |
| Sound cull trees | | | |
| Saw-timber size | 1,086 | 96 | 990 |
| Pole-timber size | 1,431 | 86 | 1,345 |
| Total sound cull trees | 2,517 | 182 | <u>1/</u> 2,335 |
| Rotten cull trees | 1,167 | 168 | 999 |
| Limbs | 281 | -- | 281 |
| Total secondary growing stock | 3,965 | 350 | 3,615 |
| Grand total | 11,322 | 5,724 | 5,598 |

1/ Includes 1,009 million cu. ft. of palm.

Table 47.--Volume of live saw timber on commercial forest land by diameter class group by species. Florida, 1949

| Species | Diameter class groups | | |
|----------------------------|-----------------------------------|------------------------|----------------------------|
| | 9.0-12.9" d.b.h. ^{1/} | 13.0-18.9" d.b.h. | 19.0" and larger d.b.h. |
| | <u>Million bd. ft.</u> | <u>Million bd. ft.</u> | <u>Million bd. ft.</u> |
| Longleaf & slash pines | 7,592 | 2,905 | 271 |
| Shortleaf & loblolly pines | 449 | 696 | 157 |
| White & chestnut oaks | 44 | 105 | 170 |
| Tupelo & blackgum | 424 | 834 | 320 |
| Sweetgum | 143 | 370 | 116 |
| Yellow-poplar | 12 | 28 | -- |

^{1/} 10" diameter class not included for eastern hardwoods.

Table 48.--Net growth, normal mortality, and commodity drain on primary growing stock on commercial forest land by tree-size class. Florida, 1948

| Tree size class | Current annual net growth | Current annual normal mortality | Current annual commodity drain |
|-------------------|------------------------------|------------------------------------|-----------------------------------|
| | <u>Million cu. ft.</u> | <u>Million cu. ft.</u> | <u>Million cu. ft.</u> |
| Saw-timber trees | 355 | 22 | 209 |
| Pole-timber trees | 15 | 14 | 23 |
| Total all trees | 370 | 36 | 232 |

DEFINITION OF TERMS

Land-Use Classes

Forest land. Includes (a) lands which are at least 5 percent stocked with trees of any size and capable of producing saw timber or other wood products, and (b) lands from which the trees described in (a) have been removed to less than 5-percent stocking but which have not been developed for other use; subdivided into the following classes:

Commercial: Forest land which is (a) producing, or physically capable of producing, usable crops of wood (usually saw timber), (b) economically available now or in the future, and (c) not withdrawn from timber use.

Noncommercial: Forest land which is (a) incapable of yielding wood products (usually saw timber) because of adverse site conditions, or (b) so inaccessible as to be permanently unavailable economically, and (c) not withdrawn for specific purposes.

Reserved: Public forest land that has been withdrawn from timber utilization through statute, ordinance, or administrative order.

Reserved commercial: Reserved forest land that otherwise qualifies as commercial forest land.

Reserved noncommercial: Reserved forest land that otherwise qualifies as noncommercial forest land.

Non-forest land. Includes land in any of the following classes:

Active agriculture: Land under cultivation or in pasture including farm yards and work lots.

Idle agriculture: Land previously cultivated or pastured but now idle or abandoned and having less than a five-percent stocking of trees.

Marsh: Low, wet areas characterized by a heavy growth of grass and reeds and an absence of timber.

Sand dunes and beaches: Non-forested sand dunes and coastal beaches.

Urban and other areas: Includes towns, residential and industrial suburban areas, school yards, cemeteries, roads, railroads, power lines, and other rights-of-way.

Water: Includes lakes, bays, and estuaries over 40 acres in size and streams, canals, and sloughs at least one-eighth of a mile in width which are classed as "inland water" by the Bureau of the Census. Smaller lakes and ponds between one acre and 40 acres in size, and waterways between 120 feet and 660 feet in width, which are classed as land area by the Bureau of the Census, are also included as water areas.

Forest Types

Pine types. Stands in which softwood species comprise at least 25 percent of the dominant and codominant trees with the named pine species predominating. Scattered stands of shortleaf pine and spruce pine are included with the loblolly pine type.

Cypress. Stands in which softwood species comprise at least 25 percent of the dominant and codominant trees with cypress or white cedar predominating.

Lowland hardwoods. Stands in which mixed hardwoods such as tupelo gum, black-gum, sweetgum, white oak, water oak, red maple, and ash comprise at least 75 percent of the dominant and codominant trees. Found along rivers, small streams, and in swamps and bays.

Upland hardwoods. Stands in which mixed hardwoods such as red oak, white oak, post oak, hickory, ash, sweetgum, elm, and yellow-poplar comprise at least 75 percent of the dominant and codominant trees. Found on the drier upland sites and on low rolling hills bordering the flatwood zone.

Scrub oak. Stands in which scrub species such as blackjack, bluejack, turkey and laurel oaks predominate and in which sound commercial species comprise less than five percent of satisfactory stocking.

Palms. Stands in which there is at least a five-percent stocking of merchantable palm trees and less than five-percent stocking of other sound commercial species.

Stand-Size Classes

Saw timber. Stands containing at least 1,500 board feet net, International 1/4-inch log rule, per acre in sound, live, softwood trees 9.0 inches d.b.h. or larger or hardwood trees 11.0 inches d.b.h. or larger. Two classes of saw-timber stands are recognized:

Large saw timber: Stands of saw timber having more than 50 percent of the net board-foot volume in softwood trees 15.0 inches d.b.h. or larger, or hardwood trees 17.0 inches d.b.h. or larger.

Small saw timber: Stands of saw timber having 50 percent or less of the net board-foot volume in softwood trees 15.0 inches d.b.h. or larger, or hardwood trees 17.0 inches d.b.h. or larger.

Pole timber. Stands at least 10 percent stocked with pole-size or larger timber, with at least one-half the minimum stocking in pole sizes, and which have less than 1,500 board feet net per acre of saw timber.

Seedling and sapling. Stands less than 10 percent stocked by pole-size or larger trees and with less than 1,500 board feet net per acre, but at least 40 percent stocked with commercial species. Eight hundred seedlings or saplings per acre are considered full stocking.

Poorly stocked and unstocked. Stands of pole-size or larger trees that are less than 10 percent stocked, seedling or sapling stands less than 40 percent stocked, or nonstocked forest land.

Diameters

D.b.h. (diameter at breast height). Stem diameter in inches, outside bark, measured at 4-1/2 feet above the ground.

Diameter class. All trees were tallied by 2-inch diameter classes, each class including diameters 1.0 inch below and 0.9 inch above the stated midpoint, e.g., trees 7.0 to and including 8.9 inches are in the 8-inch class.

Growing Stock Classification

Primary Growing Stock

Sound saw-timber trees: Live softwood trees at least 9.0 inches d.b.h. and hardwood trees at least 11.0 inches d.b.h., with not less than one merchantable log 12 feet long, or with less than 50 percent of the gross volume of the tree in sound saw timber.

Sound pole-timber trees: Straight-boled trees between 5.0 inches d.b.h. and saw-timber size.

Sound sapling-size trees: Trees 1.0 inch to 4.9 inches d.b.h. which will grow into pole- or saw-timber size trees of sound quality.

Secondary Growing Stock

Sound cull trees: Live trees of all sizes that fail to qualify as sound timber because of poor form, excessive limbiness, or other sound defect. Volumes shown for sound cull trees also include the limbs, in sections four feet long and at least 4.0 inches in diameter inside bark, of sound saw-timber size hardwoods. Scrub oak and noncommercial species such as ironwood, blue beech, sassafras, etc., are included in this group.

Rotten cull trees: Live trees of all sizes that fail to qualify as sound timber because of rotten defect.

Palms: All species of Sabal 5.0 inches d.b.h. and larger with at least 12 feet of clear stem. All palm trees were considered to be free of rotten defect.

Species Groups

Softwoods. All of the pines, eastern redcedar, Atlantic white-cedar, pond cypress, and baldcypress.

Soft-textured hardwoods. Black and water tupelos, sweetgum, soft maple, magnolia, and sweetbay. The other soft-textured hardwoods include cottonwood, willow, basswood, and yellow-poplar.

Hard-textured hardwoods. All of the oaks, hickories, ash, river birch, elm, hackberry, and sycamore.

Volume Estimates

Board-foot volume. The volume in board feet, measured by the International 1/4-inch rule, exclusive of defect, of that portion of sound saw-timber trees between the stump and the upper limit of merchantability for sawlogs.

Volume in cords. For sound trees the volume in standard cords (including bark) of the sound portion of trees 5.0 inches d.b.h. and larger, between stump and a minimum top-stem diameter of 4.0 inches inside bark. Similar volumes are given for cull trees. The volume in limbs, in sections four feet long and at least 4.0 inches in diameter inside bark, of sound saw-timber size hardwoods is included as sound cull material.

Volume in cubic feet. Same as volume shown in cords except bark is not included.

International 1/4-inch log rule. A rule for estimating the board-foot volume of 4-foot log sections, according to the formula $V = .905 (0.22D^2 - 0.71D)$. The taper allowance for computing the volume in log lengths greater than four feet is 0.5 inch per 4-foot section. Allowance for saw kerf is 1/4 inch.

Standard cord. A stacked pile, 4 x 4 x 8 feet, of round or split bolts, estimated to contain, on the average in Florida, 72 cubic feet of softwoods (wood only) or 71 cubic feet of hardwoods (wood only).

Gum Naval Stores Conditions

Round timber. A minimum of 15 longleaf and slash pine trees 9.0 inches d.b.h. or larger per acre that have never been worked for naval stores.

Working. Longleaf and slash pine trees that are now being worked for naval stores.

Front-faced: Turpentine tree species on which the front or first face is now being worked.

Back-faced: Turpentine tree species on which the front face has been worked out and on which a back (second or third, etc.) face is being worked.

Resting. Longleaf and slash pine trees with a worked-out front face at least 5 feet high and on which back-facing has not been started.

Abandoned. Longleaf and slash pine trees on which faces less than 5 feet high were discontinued.

Worked-out. Longleaf and slash pine trees on which two or more faces at least 5 feet high have been worked out and with no possibility of supporting another face.

Stocking

Stocking is the extent to which growing space is effectively utilized by trees. The number of stems present by d.b.h. classes was used as a basis for stocking classification. Areas having the minimum numbers of trees listed below, either in a single diameter class or in combinations, were considered fully stocked.

| <u>DBH</u> | <u>Minimum number trees per acre</u> |
|------------|--|
| 2 inches | 800 |
| 4 inches | 600 |
| 6 inches | 450 |
| 8 inches | 300 |
| 10 inches | 200 |
| 12 inches | 150 |
| 14 inches | 110 |

Growth and Drain

Net growth. The volume of net growth was computed only on trees in the primary growing stock group. Cull trees and other trees in the secondary growing stock group were not included.

Board foot: The change during the calendar year in the saw-timber growing stock resulting from tree growth and mortality losses. Includes the gains accruing from the growth of small trees into saw-timber sizes during the year.

Cord or cubic foot: The change during the calendar year in the stem volume of all sound trees 5.0 inches and larger resulting from tree growth and mortality losses. Includes the gains accruing from the growth of saplings into pole sizes during the year.

Mortality

Board foot: The net volume lost from the saw-timber growing stock during the calendar year by the death of individual trees through the normal action of fire, tree competition, disease, insects, drought, and wind. Catastrophic losses did not occur during the growth period.

Cord or cubic foot: The net volume lost from the all-timber growing stock during the calendar year by the death of individual trees through natural causes.

Commodity drain

Board foot: The net volume removed from the saw-timber growing stock through cutting of timber products and logging waste during the calendar year.

Cord or cubic foot: The net volume removed from the all-timber growing stock through cutting of timber products and logging waste during the calendar year.

RELIABILITY OF FOREST SURVEY DATA

In general, the errors which affect the accuracy of Forest Survey area and timber volume estimates arise from two sources. These may be described as (1) sampling errors which result from using sampling procedures rather than making a complete inventory or canvass, and (2) non-sampling errors which arise from human mistakes in judgment, measurement, recording or arithmetic.

In Forest Survey work a diligent effort is made to maintain a high degree of accuracy in the collection and compilation of data. The sampling errors are held to a specified minimum through survey design and sampling technique. These errors are the only measurable errors involved in computing the reliability of the data. The non-sampling errors are minimized or eliminated through training, supervision, field check cruises, and complete editing and machine verification in compiling the data.

Forest area. The sampling intensity of the 1949 survey was sufficient to provide an estimate of the total forest acreage in the State with a standard error of ± 0.4 percent. The probabilities are two out of three that the estimated forest acreage is within ± 0.4 percent of the actual acreage.

Timber volume. The standard error of estimate of the 1949 board-foot volume in the State was ± 1.7 percent. Here again, the probabilities are two out of three that the estimated volume is within ± 1.7 percent of the actual volume. Standard errors for the volumes in cords or cubic feet were not computed but they should be smaller.

Drain volumes. The 1948 commodity drain volumes were computed from the production records of all primary wood-using plants which drew on the State's timber supplies, and from an area sample of the production of fuel wood and fence posts. The reported production of the various commodities were converted into drain on the growing stock through drain-to-production adjustment ratios covering waste, over-utilization, mill overrun, and other factors. The sampling error for the total cubic-foot commodity drain estimate was ± 1.8 percent.

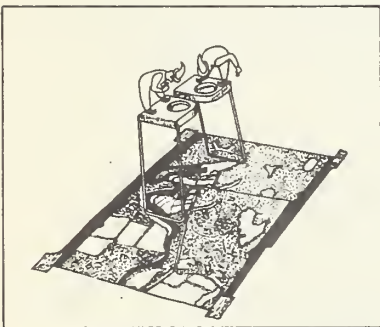
Use of county data. The tables showing area and timber volumes by county are included to permit grouping of county data in any desired combination. Statistics for individual counties have standard errors for forest area ranging from ± 1.4 percent to ± 12.0 percent, and for total board-foot volumes, from ± 7.0 to ± 18.6 percent. Obviously, detailed comparisons between county statistics are subject to considerable error and should be avoided. Grouping the data for a number of counties will increase the reliability of the estimates and make these data sufficiently accurate for most general purposes.

HOW THE FOREST INVENTORY IS MADE

The present system of inventory is based upon interpretation of aerial photographs supplemented by cruising of randomly selected ground plots. The county is the basic work unit. Steps in the procedure are as follows:



1. Acreages of forest land are estimated with the use of a dot grid placed on every third contact print along flight lines in each county. The proportion of dots falling on forest areas when applied to the gross area of the county yields a preliminary estimate of the acreage of forest land. This is later revised after certain field checks.



2. Every 3rd plot listed as forest in Step 1 is classified into forest type, stand class, and density class by careful stereoscopic analysis of the photographs. The proportion of plots falling in each classification when applied to the forest area of the county gives a preliminary estimate of the area in each classification. These areas are revised following ground checking.



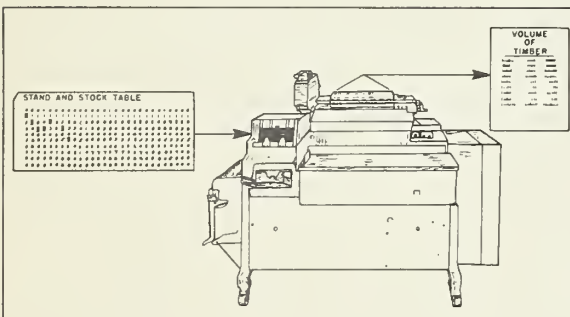
3. Timber cruisers make a detailed on-the-ground tally of a proportion of the photo plots in each stand class to obtain volume, growth, cull, and mortality data, and to check accuracy of photo classification. Proportions vary according to distribution of stand classes. Every 3rd large saw-timber photo plot, every 4th small saw-timber, every 6th pole-timber, and every 13th seedling and sapling, and every 26th denuded plot were taken in Florida. Samples of idle and agricultural plots were also checked to determine the area reverting to forest.



4. Growth estimates are based on increment borings taken from trees of the various diameters and species in each forest type and stand class.



5. Estimates of the amount of wood produced as primary forest products are obtained from sawmills, pulpmills, veneer plants, and other wood-using industries. Other surveys are made to determine the amount of fuelwood and fence-post production. In addition, studies of wood utilization are made to adjust reported production of the various commodities to drain in terms of inventory volumes.



6. All field data are sent to Asheville for editing and are placed on punch cards for machine tabulation. Final estimates are based on statistical summaries.

FOREST SURVEY REPORTS PUBLISHED SINCE 1945

Southeastern Forest Experiment Station

- No. 21 - 1945 Pulpwood Production by County in the Carolinas and Virginia.
- No. 22 - Southern Forests as a Source of Pulpwood.
- No. 23 - 1946 Pulpwood Production by County in the Southeast.
- No. 24 - Southern Pulpwood Production and the Timber Supply.
- No. 25 - Forest Resources of the Lower Coastal Plain of South Carolina.
- No. 26 - 1946 Commodity Drain by County from South Carolina Forests.
- No. 27 - 1947 Pulpwood Production by County in the Southeast.
- No. 28 - South Carolina's Forest Resources, 1947.
- No. 29 - 1948 Pulpwood Production by County in the Southeast.
- No. 30 - Forest Resources of Northeast Florida, 1949.
- No. 31 - Forest Resources of Central Florida, 1949.
- No. 32 - Forest Resources of Northwest Florida, 1949.
- No. 33 - Forest Resources of South Florida, 1949.
- No. 34 - Timber Production and Commodity Drain from Florida's Forests,
1948.
- No. 35 - 1949 Pulpwood Production in the South.

USDA MISCELLANEOUS PUBLICATION

- No. 681 - Virginia Forest Resources and Industries, 1949.

